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PEER SUPPORT AS A PREDICTOR OF COLLEGE ADJUSTMENT IN STUDENTS OF MEXICAN-ORIGIN

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PEER SUPPORT AS A PREDICTOR OF COLLEGE ADJUSTMENT IN STUDENTS OF MEXICAN-ORIGIN

by

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Peer Support as a Predictor of College Adjustment in Students of Mexican-Origin

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Previous research has examined the influence of social support and family support on Latino college adjustment; however, few studies have examined the role of peer support on Latino college adjustment, and even fewer studies have focused exclusively on Mexican-origin students. The purpose of this study was to explore the importance of perceived peer support to Mexican-origin college students adjusting to a predominantly White university, with special attention given to the role of perceived peer support in the context of minority status stress and traditional college stress. Specifically, this study aimed to find whether perceived peer support contributed to Mexican-origin students' college adjustment. Given that many minority students attending a predominantly White university experience minority status stress and traditional college stress, this study also assessed the extent to which perceived peer support buffered Mexican-origin students from these stressors. A second goal of this study was to examine the heterogeneity of the Mexican-origin college student population to determine whether acculturation status

influenced the relation between perceived peer support and several variables including minority status stress, traditional college stress, and college adjustment.

Mexican-origin (N = 136) students were recruited from the Center of Mexican American Studies, the Latino Leadership Council, and the Educational Psychology subject pool at The University of Texas at Austin. Participants completed an online survey that included a demographic form and five questionnaires that assessed traditional college stress, minority status stress, acculturation, perceived peer support, and college adjustment.

Several important findings were identified. Perceived peer support was associated with increased levels of traditional college stress, social adjustment, and attachment to the university. Traditional college stress, specifically the academic stress and social stress subscales, negatively predicted overall college adjustment. Of the five minority status stress subscales, achievement stress and interracial stress negatively predicted college adjustment while social climate stress positively predicted college adjustment. Finally, acculturation status negatively predicted all five types of minority status stress. Contrary to what was predicted, none of the interaction terms were significant, indicating that neither perceived peer support nor acculturation status moderated the effects of stress on adjustment. Theoretical and clinical implications of these findings are discussed.

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CHAPTER ONE

Overview of the Study

The Latino population is growing at an increasingly fast rate. Between the years 2000-2025, the U.S. Census (1997) has projected that the White population aged 18-24 will decrease 4% while the number of Latinos will increase by 78% (Rumberger & Rodriguez, 2002). By the year 2050, researchers have predicted one out of every four Americans will be Latino (Shinagawa & Jang, 1998). One area of particular interest regarding the Latino population growth is their under-representation in postsecondary education; particularly Mexican-origin students. In 2000, Latinos represented 36.5% of students aged 18- to 24- enrolled in college (Harvey, 2002). While Mexican Americans comprise 58% of the Latino population, they only represent 7% of the total undergraduate population.

In nearly all age cohorts, the Latino dropout rate is higher than any other racial or ethnic group except American Indians (Rumberger & Rodriguez, 2002). In 1999, the dropout rate for White, non-Latinos was 7.3%, compared to 12.6% for Black, non-Latinos, and 28.6% for Latinos (U.S. Department of Education, National Center for Education Statistics, 2001, Table 106). Among Latino groups, students of Mexican-origin are most likely to drop out of school and are least likely to have graduated high school or earned a degree in higher education (Meehan, 1997; National Center for Education Statistics, 1998; U.S. Census Bureau, 2000). In 1997, 5.4% of Mexican Americans completed college in comparison to 20.2% of Cubans and 9.7% of Puerto Ricans (Baron & Constantine, 1997). In comparison to the total U.S. population, only 7% of Mexican Americans over the age of 25 have earned college or graduate degrees, compared to 25% of the total U.S. population (U.S. Census Bureau, 2000). The majority of research studies

have combined Latino cultures (e.g., Mexicans, Cubans, Puerto Ricans, etc.); however, differences between the Mexican-origin population and other Latino groups in the context of education highlight the need to examine these ethnic groups separately.

Although many educational improvements have been made for the Mexican-origin population, many students continue to struggle and ultimately drop out of school. Postsecondary educational institutions have attempted to address the problem of attrition through policies aimed at increasing access to education. Though many researchers would argue the policies have been effective at increasing enrollment rates, they have not ameliorated issues of persistence and degree attainment (Nevarez, 2001). For example, a national trend analysis conducted by Carter and Wilson (as cited in Valencia, 2002b) illustrated that the Latino college completion rate increased only from 6% to 9% over a twenty year time span (1975-1995) while the White completion rate increased from 15% to 24% in this same time period. In 2000, 10% of Latinos ages 25-29 had completed postsecondary education compared to 34% of Whites and 18% of Blacks (U.S. Department of Education, National Center for Education Statistics, 2003). These statistics are especially startling because it has been projected that Latinos will experience the greatest numbers of college enrollment from 1995-2015 (Carnevale & Fry, 1999). They specify that the number of Latino students who enroll in college will increase from 1.4 million in 1995 to 2.5 million in 2015, constituting a 73% increase (Carnavale & Fry, p. 73). Yet, these students will continue to be at risk of dropping out of school until programs are implemented to address the specific needs of Latino students.

Policy and research aimed at enhancing college persistence in Mexican-origin students have focused on several aspects of adjustment in the academic and social domains of college. Within each domain, students face various demands and their resilience may contribute to their level of college adjustment. These demands include

educational demands, interpersonal-societal demands, the degree to which a student is experiencing psychological or physical distress as well as the quality of the relationship between the student and the institution (Baker & Siryk, 1989). Indicators of college adjustment include college persistence, psychological well-being, and performing well academically (Baker & Siryk).

One recent research effort aimed at enhancing college persistence in Mexican-origin students has focused on fostering a more accepting campus climate for diverse cultural groups, particularly on predominantly White campuses. Hurtado (1994) described campus climate to be "the product of various elements that include the historical, structural, perceptual, and behavioral dimensions of the college environment. Each of these dimensions can affect a student's psychological response to the environment" (p. 22). Gonzalez (2002) has cited several studies indicating that Latino students frequently perceive the campus climate at predominantly White universities to be "alienating, isolating, hostile, and unsupportive" (p. 194, Attinasi, 1989; Bennet & Okinaka, 1990; Gandara, 1995; Hurtado, 1992, 1994; Hurtado, Carter, & Spuler, 1996; Olivas, 1986). Gonzalez attempted to gain a deeper understanding of Latinos' perceptions of the campus climate by implementing concept modeling, a research method defined by Padilla in 1991 (as cited in Gonzalez, 2002) as a way "of describing and understanding social situations" (p. 196). Gonzalez' findings have indicated that "the dominant White cultural representations communicated the message that a Chicano[1] presence in a predominantly White university was something that was not important, valued, or does not belong" (p. 214). He has offered many suggestions to modify Chicano students'

[1] Chicano is a politicized term reflecting a human rights movement from the 1960's, and "Chicano" refers specifically to Latinos of Mexican-origin, but not all Mexican-origin individuals identify in this manner.

experiences on campus, including increasing the presence of Chicano faculty, staff, and students; increasing their political power; increasing Chicano cultural representations on campus; and increasing the amount of Chicano knowledge "created and shared on campus" (p. 216).

Hurtado (1994) was also interested in Latino students' perceptions of campus climate. She examined whether 'high-achieving' Latino students experienced an accepting campus climate at several four year institutions to determine specific areas for growth in educational institutions. She found that one-quarter of Latino students felt they did not 'fit in' at college, suggesting an unwelcoming campus climate at the university (p. 35). Hurtado also learned, however, that many Latinos reported frequent social interactions with students of other ethnicities and races even though they felt students on their campus knew very little about their culture. Thus, it appears that these interactions served as an informal opportunity for non-Latino students to learn about Latino culture. Hurtado has underscored the importance of implementing formal education about Latino culture in the college curriculum to increase the knowledge and understanding of students from other ethnicities and races ultimately leading to a more accepting campus climate for diversity.

An adverse campus climate can negatively impact minorities' academic adjustment (Smedley, Myers, & Harrell, 1993), college adjustment, and decision to persist in college (Nora & Cabrera, 1996). Gonzalez (2002) has explained that a more supportive campus climate at predominantly White universities may help to increase retention rates of minority groups.

Mexican-origin students' perceptions of a hostile campus climate may be related to their experiences with stressors at college. Many Mexican-origin students encounter traditional college stress, or stress that is experienced by and affects all college students

such as academic demands, relationship problems, and financial concerns (Rodriguez, Mira, Myers, Morris, & Cardoza, 2003; Smedley et al., 1993). Mexican-origin students are also likely to experience minority status stress, or stressors related to physical or cultural characteristics that "define membership" to a particular group (Smedley et al., p. 436). Many Mexican-origin students may experience minority status stress because of their "marginal social, political, and economic status" (Smedley et al., p. 436).

Students' experiences at college, including traditional college stress and minority status stress, can be conceptualized according to Bronfenbrenner's Ecological Systems Theory (EST; 1979, 1989, 1993), and Spencer, Dupree, and Hartmann's Phenomenological Variant of Ecological System's Theory (PVEST; 1997). Bronfenbrenner's microsystem is of central importance to the present study because it addresses the direct relation between the individual and a particular context (e.g., peers, school, home, and neighborhood). The PVEST accounts for individuals perceptions' of their experiences in a particular context.

Social support, also a part of the microsystem, is important to multicultural populations including Latino students on predominantly White college campuses because it is directly related to college adjustment (Kenny & Stryker, 1996). Cobb (1976) defined social support as "information leading the subject to believe that he is cared for and loved, esteemed, and a member of a network of mutual obligations" (p. 300). Social support may be particularly important to Latino students because of its cultural relevance (e.g. personalismo & familismo; Dane, 1980; Dugan, 1983; Escobar & Randolph, 1982; Keefe, Padilla, & Carlos, 1978).

The majority of research that has examined the relation between social support and college adjustment in Latino students has focused on family support. Few researchers have included peer support, or the perception that an individual's social needs

are fulfilled by peers, as a variable of support and no identified studies have focused exclusively on peer support in students of Mexican-origin (Alva, 1991; Gandara, 1982; Padilla & Alva, 1987; Procidano & Heller, 1983). Yet, peer support has been found to be a significant predictor of college adjustment in this population (Gandara & Osugi, 1994; Rodriguez et al., 2003; Schneider & Ward, 2003; Young, 1992).

Social support may be a possible avenue to buffer Mexican-origin students from traditional college stress and minority status stress. According to the "buffering hypothesis," social support buffers individuals from pathology in the presence of environmental stressors (Caplan, 1974; Cassel, 1974; Cobb, 1976). In the present study, the buffering hypothesis was expected to take place in the microsystem (e.g., self, peers, and the university) because it included traditional college stress and minority status stress. Perceived peer support was expected to buffer individuals from the negative effects of traditional college stress and minority status stress. Students who reported higher levels of perceived peer support were expected to be buffered from the negative effects of these stressors. Alternatively, students who did not perceive peer support were not expected to be buffered from the negative effects of minority status stress and traditional college stress and would consequently have difficulties adjusting to college. Acculturation, a cultural process whereby an individual of one cultural group adopts the beliefs and behaviors of another group, was also examined in the context of these relations. It was expected that individuals with varied levels of acculturation would have different experiences (Birman, 1994).

In the present study, I examined specific aspects of perceived peer support in a sample of Mexican-origin freshmen and sophomores attending a predominantly White university. The study was limited to freshmen and sophomores in hope of gaining more understanding of Mexican-origin individuals' experience with peer support and their

subsequent adjustment in the midst of their transition to a predominantly White college campus. Please refer to Appendix A for a conceptual model of the four major research questions addressed in this study. The research questions include:

1) Does perceived peer support predict college adjustment in students of Mexican-origin?
2) Does perceived peer support protect Mexican-origin students from minority status stress?
3) Does perceived peer support protect Mexican-origin students from traditional college stress?
4) Does acculturation level predict the relation between perceived peer support and traditional college stress, minority status stress, and college adjustment?

The following chapter provides an overview of the literature related to Mexican-origin individuals, perceived peer support, traditional college stress, minority status stress, cultural variables, and college adjustment in the context of a predominantly White university (see Appendix B for definitions of relevant terms). The chapter opens with an introduction to Mexican-origin individuals, including a discussion on Mexican-origin individuals as a subgroup of Latinos, the educational history of Mexican-origin individuals, and the present condition of Mexican-origin students in higher education. Next, the campus climate as it is perceived by Mexican-origin individuals is discussed and is proceeded by a conceptualization of the dynamic relation between perceived peer support, traditional college stress, minority status stress, college adjustment, and acculturation from Bronfenbrenner's EST and Spencer and colleagues' PVEST. Then research on perceived peer support and the protective role it may serve from traditional

college stress and minority status stress are delineated. Finally, acculturation is explored specifically as it relates to social support and adjustment in Mexican-origin individuals.

This study aims to broaden the current field of research by examining the protective function of perceived peer support in response to traditional college stress and minority status stress in a sample of freshman and sophomore Mexican-origin students attending The University of Texas at Austin. Prior research has examined the protective function of social support in response to minority status stress and traditional college stress combined, but no identified studies have measured the extent to which perceived peer support protects individuals from the unique effects of traditional college stress and minority status stress. Also, as opposed to previous studies that have examined several Latino groups combined, the present study contributes to the field by focusing on students of Mexican-origin to illuminate the presence of within group differences and the specific social needs of Mexican-origin students.

This examination is driven by the necessity to foster a greater multicultural awareness in institutional settings and to address the social needs of Mexican-origin college students. An enhanced understanding of perceived peer support in Mexican-origin college students will inform current literature by illuminating the importance of peers in adjusting to college particularly in a context where minority students may feel alienated from the campus environment. A greater feeling of acceptance at college may facilitate college adjustment and subsequently increase university retention rates. Finally, the findings of this study are expected to provide universities with more detailed information to bolster current social intervention programs.

CHAPTER TWO

Literature Review

The purpose of this study is to gain a deeper understanding of the role of perceived peer support in the college adjustment of Mexican-origin students. Only a handful of studies have included a variable of peer support when examining social support and college adjustment in Mexican-origin college students, while even fewer studies have focused exclusively on perceived peer support (Rodriguez et al., 2003). The Mexican-origin population encompasses a diverse and complex group of individuals; therefore acculturation level will be included in this study to account for one aspect of within group differences. Mexican-origin college students with differing acculturative statuses may report varied levels of perceived peer support that facilitate adjustment. This examination is driven by the necessity to foster a greater multicultural awareness in institutional settings and to address the social needs, and consequently retention concerns of Mexican-origin college students. Please refer to Table 1 (see below) for a detailed summary of the research questions examined in this study.

Table 1: *Summary of Research Questions*

Research Question	
1a	Is there a linear association between perceived peer support and overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
1b	Does perceived peer support contribute to overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
2a	Is there a negative correlation between traditional college stress and overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
2b	Does traditional college stress contribute to overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
2c	Does perceived peer support moderate the relation between traditional college stress and overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
3a	Is there a negative linear association between minority status stress and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?
3b	Do perceived peer support and minority status stress contribute to overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?
3c	Does perceived peer support moderate the relation between minority status stress and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?
4a	Does acculturation status moderate the relation between perceived peer support and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?
4b	Do perceived peer support and acculturation status contribute to traditional college stress in a sample of Mexican-origin college students attending a predominantly White university?
4c	Does acculturation status moderate the relation between perceived peer support and traditional college stress in a sample of Mexican-origin students attending a predominantly White university?
4d	Do perceived peer support and acculturation status contribute to minority status stress in a sample of Mexican-origin students attending a predominantly White university?
4e	Does acculturation status moderate the relation between perceived peer support and minority status stress in a sample of Mexican-origin students attending a predominantly White university?

MEXICAN-ORIGIN INDIVIDUALS AS A SUBGROUP OF LATINOS

Latinos represent several different groups, and in the U.S. include primarily Mexican Americans, Puerto Rican Americans, Cuban Americans, Central Americans, and South Americans (Hayes-Bautista, Schink, & Chapa, 1988; Umaña-Taylor & Fine, 2001). Additionally, Valencia (2002 a) also includes people from Spain, and the Dominican Republic as part of the Latino population. Many researchers have examined combined Latino groups, and have consequently, failed to acknowledge the diversity embedded within groups. Umaña-Taylor and Fine have recommended that Latino groups be examined independently rather than combining them into one group. Malaney and Shively (as cited in Powell, 1998) have also highlighted the need to examine each ethnic minority group separately on individual campuses, "since they found that different groups experience and react to their campus environments differently" (p. 102). Further, the Mexican-origin population and other ethnic groups engender great diversity that is worth exploring, and may reflect differences in the generation they migrated, length of residence, legal status, social status, ethnic background, and reasons for migration (Guarnaccia, 1997, p.73).

The current study addressed this limitation by focusing exclusively on Mexican-origin students' experiences in higher education. The following section explores the differences between Mexican-origin individuals and other Latino groups in the selection of an ethnic label, which is followed by a more detailed rationale of ethnic label preference in the Mexican-origin population. Then, differences between Mexican-origin individuals and other Latino groups in the context of education are addressed.

Ethnic Labels

Some researchers prefer the term Latino when addressing a heterogeneous population of Mexican Americans, Puerto Ricans, Cubans, Americans, Central Americans, and South Americans who reside in regional communities (Hayes-Bautista et al., 1998). However, Guarnaccia (1997) has explained that a general label, such as Latino, is "conceptually and practically inappropriate due to the presence of diversity embedded in Latino groups" (p. 72). He explained that:

> Latinos differ in national history and origin…..in the pressures within each country that have led to migration and the differing waves of migration; and the differing relationships with the U.S. through time that have affected how those migrants were received. (p. 72)

Label preference of Mexican-origin individuals

There are several different ethnic labels from which Mexican-origin individuals choose to identify themselves including Latino/a, Hispanic, Hispano, Mexican American, Mexicano/a, and Chicano/a. Hurtado (2002) has explained that in some regions it is more appropriate to refer to the name of the specific ethnic group, for example in the Midwest and Southwest Latinos tend to be of Mexican descent and are identified accordingly (Chapa & Valencia, 1993). The term Hispanic is used primarily in the context of population, for example, in the U.S. Census survey. Hurtado added that Latinos in many regions prefer the term Hispanic to highlight their link to Spanish Colonial families in the 1500s. For the purposes of this study, the term Mexican-origin was used to respect the heterogeneity of label preference within groups.

Education

The literature has suggested many differences between the Mexican-origin population and other Latino groups in the context of higher education. Among Latino groups, Mexican American students have the highest drop out rate (Fashola & Slavin,

1997; Rumberger & Rodriguez, 2002). For example, 44% of Mexican-origin students between the ages of 16-24 born outside the U.S. have dropped out of school compared to 29% of individuals from other Latino groups (Marotta & Garcia, 2003). Meehan (1997) has noted that students of Mexican-origin who are first or later generation have also exhibited higher drop out rates than other Latino groups. Marotta and Garcia added that students of Mexican descent are the least likely of Latino groups to have earned a high school diploma or have graduated from an institution of higher education. Rumberger and Rodriguez (2002) have pointed out that many differences among Latino subgroups are greater than differences between Latino and non-Latino populations (p. 114). For example, the U.S. Department of Commerce, Bureau of the Census (as cited in Rumberger & Rodriguez, 2002) found that the difference between dropout rates for Cuban and Mexican-origin populations was greater than the difference between Latino and non-Latino populations in 1998.

EDUCATIONAL HISTORY OF MEXICAN-ORIGIN INDIVIDUALS

Segregation of White children and Mexican-origin children has been a common practice in Texas since the 1800s. Even though the Constitution of the State of Texas did not explicitly allow for segregation of Mexican students, many schools followed the practice (San Miguel & Valencia, 1998). Schools reserved for Mexican students were consistently under-funded, lacked appropriate teaching materials, and had unqualified teachers (Valencia, 2000). Regardless of laws that outlawed segregation, including Brown vs. Board of Education (1954), segregation continued to exist throughout the 1900s (Orfield, 1988; U.S. Commission on Civil Rights, 1970, as cited in Valencia, 2000). Valencia has added that the problem with segregation continues to exist today (see Valencia [2002a] for a detailed account of segregation in Texas today).

The continual mistreatment of Mexican-origin students in education has led many to believe that people of Mexican descent do not value education. Individuals who are informed about the history of Mexicans and education can easily observe their persistent plight and struggle to obtain an education equal to their White counterparts (Valencia, 2002c). Valencia and Black (2002) have asserted that this myth reflects the false concept of "deficit thinking" (p. 81). They proceeded to define deficit thinking as "the idea that students, particularly of low-SES background and of color, fail in school because they and their families have internal defects, or deficits, that thwart the learning process" (p. 83). They also stated that this model "blames the victim" rather than having a true understanding of how the societal context, including schools and politics, influenced the underachievement of Mexican students (p. 83).

Many improvements have been made with regard to the Mexican-origin population and education (Valencia, 2002a). For example, during the 1960s and 1970s many schools created remedial, vocational and academic courses available to all students; increased the resources available to low performance schools; created programs to facilitate parental involvement, bilingual education classes, and affirmative action programs. In the 1980s and 1990s, an effort was made by school districts to improve underachievement in minority schools and to create new programs to enhance parental and community involvement (McAdams, 2000). In higher education, more efforts were geared toward increasing the presence of minority students and faculty on campus, increasing the availability of ethnic oriented courses and curricula, and the provision of social support services for minority students (Olivas, 1986).

More recently, the Development Relief and Education for Alien Minors Act of 2003 (S. 1545) also known as the DREAM act was proposed to ensure that undocumented immigrants who are raised in the U.S. and graduate from U.S. high

schools are able to attend college (Bernstein, 2004). In addition, the DREAM act has ensured that undocumented immigrants are considered for in-state tuition privileges and may ultimately meet criteria to become a U.S. citizen. In spite of several educational advances for Mexican-origin individuals, many students continue to be in separate and unequal schools, score low on standardized tests, are over- represented in low-ability groups, and underachieve (Haro, 2001; Valencia, 2002a).

MINORITY STUDENTS IN HIGHER EDUCATION

Researchers have suggested that education is heavily influenced by the values and perspectives of White individuals because they tend to dominate the education system (Colon, 1991; Gutek, 1986). Consequently, many minority students experience an incongruity, or "culture shock," between their culture of origin and the dominant culture transmitted by the university (Choi-Pearson & Gloria, 1995; Fisk, 1988; Gloria & Robinson Kurpius, 1996, p. 535). Guanipa (1998) indicated that the term "culture shock" originated in 1958 and has been defined as the anxiety individuals experience when they move to a new environment. She also stated that the term culture shock "expresses the lack of direction, the feeling of not knowing what to do or how to do things in a new environment, and not knowing what is appropriate or inappropriate (Guanipa, 1998, ¶1). Powell (1998) has also stated that the "overwhelming 'whiteness'" of predominantly White universities may create a type of culture shock particularly for diverse students who were in the ethnic or racial majority of their high schools (p. 110). Individuals tend to experience cultural incongruity when they belong to two or more cultures that differ in "values, beliefs, and expectations for behaviors" (Gloria & Robinson-Kurpius, p. 535). Allen (1992) has explained that students who attend universities comprised mostly of cultures different from their own experience adjustment difficulties. Students who are

unable to negotiate, or who do not have the resources to negotiate this inconsistency, may be at a greater risk of dropping out of college.

Powell (1998), who served as vice president for Student Affairs and as executive assistant to the president at Miami University, argued that "the percentage of baccalaureate degrees earned by students of color at traditional four-year campuses [predominantly White universities] is disproportionately lower than their undergraduate enrollments" (p. 99). According to Ganderton and Santos (as cited in Carnevale, 1999), 44% of non-Hispanic White students who graduated high school in 1980 earned bachelor degrees by 1986 compared to 20% of Latinos. A more recent statistic has indicated only 10% of Hispanic Americans graduate from 4-year colleges and universities (National Center for Education Statistics, 2003; Solorzano & Yosso, 2000). While these statistics have illustrated the presence of a problem with college retention rates in students of color, it is crucial to identify and address the factors that contribute to students leaving college before they graduate. Powell has listed several reasons she believes students of color leave school before they graduate:

> personal, social, academic, and financial difficulties; language barriers; low self-esteem; fear and isolation; lack of family support; lack of experience with higher education; racism; discrimination; a misfit between the institution and the student; the one-size-fits-all approach to serving different populations by colleges and universities; lack of role models, mentors, and satisfactory peer relationships; faculty indifference and low expectations; and a general tendency of institutions to resist change. (p.102)

The high attrition rate of minority students at traditionally White universities suggests that universities may be more focused on increasing the number of minority students without having concern or awareness of the students' experiences at college. Castenell (1998) has echoed this concern by suggesting that university administrators appear to value an increased representation of minorities on campus, but do not seem

willing to implement institutional changes that foster a multicultural campus or enhance students' college adjustment. On a similar note, Reyes and Valencia (1993) have explained that much of the professional training in the context of education has "considered little or nothing about the emergent demographic patterns and today's cultural diversity" (p. 261).

Powell (1998) has estimated the costs associated with high attrition rates for the university are a loss of $1,200 to enroll one student while the costs for the students "are incalculable" (p. 101). While Powell did not explain how she calculated this financial figure, it is clear that the costs to the students extend far beyond the financial costs to the university. For example, Powell stated that "too often, these students suffer academically because of the way they experience their college environments" (p. 99).

Powell (1998) also asserted that "improving the campus climate is perhaps the most important plank in any enrollment management strategy" (p.109). Powell continued by stating "the challenge is to create campus environments that reflect the cultural heterogeneity within and create a learning community where all students are treated with respect and helped to succeed" (p. 109). She explained that many college campuses have increased their enrollments without modifying the campus climate or paying attention to students' of color experiences and perceptions of the campus climate.

Several years ago in a poignant article on "Diversity and Community", Wong (1991) stated that minority groups, particularly African Americans, Hispanic Americans, and Asian Americans present a "new cultural diversity that more directly challenges a traditional culture of academe [sic], a culture shaped by Anglo European influences" (p.53). He underscored the need for "all major parties within our institutions" to cooperate in building cultural diversity including faculty, students, administration, and staff (p. 54):

> It is not a multicultural community that we seek; it is an intercultural community, where different groups engage each other with united purpose. We seek not a community of the lowest common denominator, where differences are tolerated and sometimes sullenly accepted, but a community of the highest common denominator, where difference is an enriching resource that leads us to a fuller understanding of what is universally true. (p. 55)

Wong has made an incredible point that may be overlooked too often on college campuses that are trying to create an 'intercultural community.' Individuals from all backgrounds and orientations need to be involved in this effort. It should not be limited to racial and ethnic minorities, women, or administrators, for example, but it should be a collaborative effort by every individual on campus that has a shared goal to enhance the campus environment. It appears most cost-efficient for universities and beneficial to students that efforts toward creating an intercultural community be well researched and designed to meet the needs of the campus community, especially since the demographics of our society continue to change rapidly. Though this may require an initial investment, the outcomes could prove to be priceless to everyone in the campus community.

Mexican-origin Students in Higher Education

Students of Mexican-origin continue to be underrepresented in higher education, an element of society that enables individuals in the U.S. to access power and opportunity (Aguirre & Martinez, 1993; Duran, 1994; Swail, Cabrera, & Lee, 2004; Zambone & Alicea-Saez, 2003). Only 5% of Mexican-origin individuals who decide to pursue a degree in higher education graduate (Chapa & Valencia, 1993). Swail and colleagues are conducting a longitudinal study examining Latino achievement beginning in 1988 with eighth-grade students. In the most recent follow-up survey in 2000, eight years after scheduled high school graduation, they found that only 23.2% of Latinos had received a bachelor's degree. Interestingly, some research findings have indicated that Latino students, including individuals of Mexican descent, have equal if not greater educational

aspirations than other college students (Quintana, Vogel, & Ybarra, 1991; Retish & Kavanaugh, 1992). However, Swail and colleagues found that even though 73% of Latinos aspired to postsecondary education only 55% aspired to a Bachelor of Arts degree, 20 percentage points lower than the national average.

Gloria and Rodriguez (2000) have cited several factors that can be attributed to the under-representation of Mexican-origin individuals in higher education, including cultural incongruence, or the experience of belonging to two or more cultures that differ in values, beliefs, expectations, and behaviors (Gloria & Robinson Kurpius, 1996, p. 535), unsupportive university environments (Cervantes, 1988; Ponterotto, 1990), financial and socioeconomic difficulties (Chapa & Valencia, 1993), educational stereotypes (Retish & Kavanaugh, 1992), and an absence of mentors (Fields, 1988). Gloria and Rodriguez have explained that many of these factors are not acknowledged when universities or other agencies research the low educational attainment of Latino students. In order to effectively "recruit, enroll, retain, and graduate Latino students," Alvan, Belgrave, and Zea (1996) have highlighted the importance of understanding the predictors of college adjustment in Latino populations (p.194).

CAMPUS CLIMATE

The campus climate has been understood to be a part of students' social support systems and also influences their decisions to stay in school (Gloria & Robinson Kurpius, 1996). Hurtado (1994) has defined campus climate as "the product of various elements that include the historical, structural, perceptual, and behavioral dimensions of the college environment. Each of these dimensions can affect a student's psychological response to the environment" (p. 22). Bennett and Okinaka (1990) indicated that students who are the least satisfied with the college environment and feel isolated are the most likely to drop out of school. For example, Cardinal (1981; as cited in Gloria & Robinson Kurpius,

1996) found that many students who have not persisted in school have experienced the college environment to be "competitive and impersonal, had fewer contacts with fellow students, and had fewer individuals in their academic networks" (P. 536). Nora (1987) has cited previous research (Alfred, 1972; Terenzini & Pascarella, 1979, 1980; Tinto, 1975) indicating that college persistence rates reflect the degree to which individuals are involved socially and academically in the institution.

Campus Climate for Minority Students

Minority students' college adjustment and decision to persist in college appears to be particularly related to the campus climate. Ponterotto (1990) has discussed several factors related to the high attrition of racial and ethnic minority students including institutional racism, lack of minority role models on campus, and inadequate high school guidance programs. He has concluded, however, that campus climate has surfaced as the "key summative factor" that determines whether minority students drop out of school (p.53). Ponterotto explained that students who feel "unwelcome[d] or alienated from the mainstream campus life are unlikely to remain and if they do remain, they are unlikely to be successful" (p. 53).

Hurtado, Milem, Clayton-Pederson, and Allen (1996) found that minority students' academic and social lives are influenced by their perception of the campus climate. Smedley and colleagues (1993) found that the social climate for diverse groups at predominantly White universities may exacerbate their level of stress in adjusting academically to college. Zea, Jarama, and Bianchi (1995) have explained that individuals' perceptions of a supportive environment are likely to vary across minority groups due to cultural differences and experiences with discrimination. Melany and Shively (1995; as cited in Powell, 1998) have stated that the presence of group

differences emphasizes the importance of studying each racial and ethnic minority group separately on individual campuses.

Failing to address problems related to campus climate may result in increased segregation, alienation, and attrition. Many minority students, particularly high achieving African American students, have opted for predominantly Black institutions because "they find them more hospitable caring, and nurturing" (Powell, 1998, p. 99). Ponterotto (1990) has provided several suggestions for improving the campus climate for minority students. He stated that minority students are more likely to graduate if minority values are appreciated at universities. He has also suggested educating the campus community about the various cultures represented on campus and that the campus climate should reflect the cultural pluralism of the "real world" (p. 55). This highlights the importance of a welcoming environment for students and that academic preparation and success, alone, are not enough to retain students and foster adjustment.

Latinos' perceptions of the college campus

Gonzalez (2002) has cited several researchers who have found that Latino students frequently perceive the campus culture to be "alienating, isolating, hostile, and unsupportive" at predominantly White Universities" (Attinasi, 1989; Bennett & Okinaka, 1990; Gandara, 1995; Hurtado, 1992, 1994; Hurtado et al., 1996; Olivas, 1986, p. 194). Hurtado has extensively examined Latinos and other minority students' perceptions of campus racial climate. In one study, Hurtado (1992) examined several institutions of higher education to draw conclusions about the contexts for campus racial climate. Her results indicated academic institutions may facilitate racial tension when they advocate an agenda counter to improving the campus climate. She explained that these agendas tend to "oppose diversification of the curriculum, student body, and faculty; concentrate resources in a few individuals; and often exclude minorities" (p. 561). More specifically,

Hurtado found that Black and Latino students who perceived their institutions were committed to creating a campus culture open to diversity had perceptions of less campus racial tension. She also found that all students (Black, Latino, and White) who perceived their academic institutions were committed to them as individuals, or had "student-centered priorities," also perceived less racial tension on campus (p. 561).

Hurtado (1994) also studied academically 'talented' Latino students' experiences of campus climate at four year institutions to determine specific areas of growth in educational institutions (p. 21). She examined student background characteristics, college structural characteristics, general campus climate measures, and student behaviors to understand student perceptions of racial and ethnic tensions on campus. The sample included 859 sophomores and juniors from approximately 224 institutions. The participants comprised 386 Chicanos, 198 Puerto Ricans, and 275 students who identified themselves as Cuban, Latin or Central American, or other Hispanic.

The results of Hurtado's (1994) study indicated that Latino students reported frequent social interactions with individuals from different races and ethnicities. However, more than one out of four Latino students report high levels of campus racial conflict and minimal trust between minorities and university personnel in administrative positions. More than a quarter of Latino students did not feel they "fit in" on predominantly White campuses and more than one-third of students believed that others perceived them as being "special admits" even though they were qualified to enter the university (p. 35). Fewer students felt they were excluded from school activities or experienced direct insults or threats because of their background. About 16% of students felt that White students had greater access to support from faculty and about 18% of students reported they had heard faculty make inappropriate comments about minorities.

These findings have suggested that even academically 'talented' Latino students are at risk of experiencing a hostile campus climate.

Hurtado has identified several characteristics that are closely linked with students who perceive a hostile campus climate toward Latinos. For example, first-generation Latinos born in the U.S.; students who rated themselves lower on academic ability; and student advocates of promoting racial understanding on campus were most likely to report experiencing a negative campus climate. Likewise, students who attended larger campuses, highly selective colleges, and colleges located in smaller towns were most likely to experience a negative campus climate. Students who perceived administrators to be 'open and inclusive' and who perceived that faculty cared about students were less likely to report racial or ethnic tension or discrimination (p. 36). Conversely, students who felt that few people on campus were knowledgeable about Latino culture perceived greater levels of ethnic or racial tension and discrimination on campus. Based on her findings, Hurtado made several suggestions to improve the campus climate. For example, she suggested increasing campus diversity, directing university funds toward programs that increase student-faculty interactions, increasing student roles in campus decision-making, and creating an accepting administrative environment (p. 37). Hurtado also underscored the importance of implementing formal education about Latino culture at the university level to increase the knowledge and understanding of students from other ethnicities and races ultimately leading to decreased perceptions of racial or ethnic tension and discrimination on campuses. While Hurtado's suggestions may be useful in developing a campus culture where students perceive less racial and ethnic tension or discrimination, I believe that formal education on culture needs to expand beyond the Latino culture to include cultures from all over the world, including U.S. culture. As a

result, students of all backgrounds can increase their knowledge, awareness, and sensitivity to others.

Hurtado, Carter, and Spuler (1996) have examined the transition to college and subsequent adjustment in a sample of Latino students in their second year of college. Using the Student Adaptation to College Questionnaire (Baker & Siryk, 1989), Hurtado and her colleagues studied the ways in which individual attributes, college structural and climate characteristics, student transitional experiences, and student behaviors were related to college adjustment. Their results indicated that 'climate-related minority status stress' posed more difficulties for Latinos than other transitional challenges, such as negotiating finances and schedules (p. 151). They found that Latinos perceptions of racial and ethnic tension were related to decreased levels of personal-emotional adjustment, attachment to the institution, and adjustment in social and academic domains. They also learned that racial and ethnic tension was experienced by the most 'talented' Latinos if they perceived "majority students think [thought] all minorities were special admits, Hispanics feel like they do not 'fit in,' groups lack good communication, there is group conflict, and there is a lack of trust between minority students and the administration" (p. 152). To alleviate this problem, Hurtado and her colleagues suggested that students from different racial and ethnic backgrounds come together to discuss each others' perceptions and misconceptions of each other to gain a better understanding of people from diverse backgrounds. One way to implement this suggestion would be to integrate discussions on culture in the context of formal education, for example, a course on multiculturalism. In the context of a formal class, discussions on sensitive issues such as race and ethnicity are likely to be facilitated by an instructor who insures that all the students are comfortable with the class discussion.

Regardless of the intervention developed to decrease students' negative perceptions of the campus environment, this issue needs to be addressed because students' negative perceptions of the campus are likely to influence students' experiences in college (Quevado-Garcia, 1987). For example, Smedley and colleagues (1993) found that Chicano and other Latino students attending predominantly White campuses experienced a significant amount of psychological stress related to the campus social climate, including "interpersonal tensions with White students and faculty and actual or perceived experiences of racism or discrimination" (p. 330). Hurtado and Carter (1997) found that Latino students who perceived a "hostile" campus climate experienced less of a sense of belonging to the college environment (p. 339). Other researchers have found that negative perceptions of the campus environment were related to negative persistence attitudes (Fry 2004; Gloria, 1997; Gloria, Castellanos, Lopez, & Rosales, 2005).

Minority Status Stress vs. Traditional College Stress

Mexican-origin students' perceptions of a hostile campus environment may be related to their experiences with stressors associated with the college environment. Smedley and colleagues (1993) have indicated that minority students attending predominantly White universities may experience many of the same stressors as other college students including academic challenges, relationship issues, and financial concerns. These stressors are referred to as traditional college stress. In addition to traditional college stress, many minority students also report experiencing stressors unique to their minority status that contribute to feelings of not belonging on campus and contribute to difficulties adapting to college life.

Minority status stress, as denoted by Smedley and colleagues (1993), may result from an individual's physical or cultural characteristics that "define membership" to a particular group (p. 436). Minority status stress may compound the effects of traditional

college stress because of the "social, political, and economic status of many minority students" (Allen, 1988; Alvan, Belgrave, & Zea, 1996; Kessler, 1979; Smedley et al. 1993, p. 436). For example, Quintana, Vogel, and Ybarra (1991) conducted a meta-analytic review of Latinos in higher education and found that Latinos experience greater levels of financial, academic, and psychological distress compared to their White counterparts. Rodriguez and colleagues (2003) suggested this may be because Latinos tend to come from poorer backgrounds and less educated families (Marin & Marin, 1991). Rodriguez and her colleagues (2003) also pointed out that Quintana and colleagues (1991) failed to distinguish whether the greater levels of stress experienced by Latino students were a function of traditional college stress that many college students experience or if their difficulties were resulted from minority status stress. Rodriguez and her colleagues have noted the importance of examining minority status stress and traditional college stress separately in order to determine the effects unique to each type of stressor and the ways they influence adjustment (Rodriguez et al., 2003; Rodriguez, Myers, Morris, & Cardoza, 2000).

Prejudice and discrimination

Allport (1954) defined prejudice as "an antipathy based on faulty and inflexible generalizations. It may be felt or expressed. It may be directed toward a group as a whole or toward an individual because he is a member of that group" (p. 9). Esses, Haddock, and Zanna (1993; as cited in Al-Issa, 1997) have explained that prejudice can be divided into several components: a cognitive component, a behavioral component, and an affective component. The behavioral component of prejudice is referred to as discrimination. Allport (1954) and Dovidio and Gaertner (1986; as cited in Al-Issa, 1997) defined discrimination as "a selectively unjustified negative behavior toward members of

a target group and often takes the form of excluding them from some activity or from a group" (p.18).

Mexican-origin students' perceptions of minority status stress may be related to their experiences with prejudice and discrimination on the college campus. Suen (1983) and Loo and Rollison (1986) have stated that minority students' feelings of prejudice and alienation may influence their decision to withdraw from college. Prejudice and discrimination also appear to negatively influence students' college adjustment. Nora and Cabrera (1996) found that minority students' college adjustment may be adversely affected by their perceptions of prejudice and discrimination indirectly influencing their decision to stay in school. Students who experience discrimination are also more likely to feel alienated from the university (Oliver, Rodriguez, & Mickelson, 1985). Perceptions of ethnic or racial tension and discrimination are also likely to influence students' peer group selection. Hurtado (1994; as cited in Hurtado and Carter, 1997) found that Latino sophomores and juniors "perceptions of racial-ethnic [sic] tension and experiences of discrimination were related to students' interactions and informal social preferences on campus" (p. 330).

Racism

Racism is another stressor experienced by minority groups and "involves the assumption of inherent superiority of one group and the consequent discrimination against others" (Al-Issa, 1997, p. 18). Racism has been conceptualized in three different ways: individual racism, institutional racism, and cultural racism (Jones, 1972). Individual racism occurs when someone is judged because of their biological traits. It is intertwined with prejudice because it also involves the perpetrator's attitudes. Institutional racism occurs when policies of an institution serve to subordinate a particular group of people by denying them access to certain privileges. Cultural racism is

an integration of institutional and individual racism and is based on the idea that one race is superior to another. Barajas and Pierce (2001) found that Latinas defined racism as "blatant acts and attitudes practiced by a few irrational social actors" (p. 863). They also found that Latina college students who were able were able to develop relationships with other Latinas were protected from negative stereotypes. A previous study (Alvan et al., 1996) also found that higher levels of social support were related to less stress due to exposure to racism.

ECOLOGICAL SYSTEMS THEORY

An ecological framework organizes the multiple variables that influence the experiences of Mexican-origin college students, such as minority status stress and traditional college stress. In addition, it helps us to understand students' perceptions of their experiences, including their perception of peer support. Over the last 30 years, there has been substantial growth of ecological frameworks to understand behavior and person-environment interactions. Empirical studies driven by ecological frameworks illustrate the importance of both individual and environmental factors in predicting human behavior (Trickett & Buchanan, 1997).

Bronfenbrenner's Ecological Systems Theory

In his Ecological Systems Theory (EST; 1979, 1989, 1993), Bronfenbrenner conceptualized the ecological environment as a series of "nested" systems connected in "interdependent, dynamic structures ranging from the proximal, consisting of immediate face-to-face settings, to the most distal, comprising broader social contexts such as classes and culture" (p. 4). He organized his model into five concentric circles with the microsystem as the innermost circle, followed by the mesosystem, the exosystem, the macrosystem, and the chronosystem. The microsystem is central to the present study;

however, all the systems influence the shape of the microsystem and will be described to facilitate a greater understanding of the model (see Appendix C for a diagram).

The innermost system, or the microsystem, has the most direct influence on an individual and is comprised of the individual and a specific context (i.e., home, peers, school, and neighborhood). Renn and Arnold (2003) stated that a traditional college student's microsystem may include a dormitory, an apartment with roommates, student organizations, an athletic team, or a job. Given that students interact with peers in these contexts, peer support is expected to be a significant influential factor in an individual's respective microsystem. Traditional college stress and minority status stress are also expected to reside in the microsystem because they are triggered by the academic context. For example, when individuals attend college they are exposed to academic demands, financial issues, and relationship challenges. In addition, minority students may experience prejudice and discrimination if they attend a university with a negative campus climate. Also encompassed in the microsystem are students' experiences with family. For example, the microsystems of Mexican-origin students who are raised in a family that values personalismo and familismo will likely develop differently than the microsystems of individuals raised in a household without these cultural values.

The next system, the mesosystem, comprises the relations between the contexts in the microsystem (i.e., the relation between the home and school, peers and family, family and school). Renn and Arnold (2003) have suggested that a college student's mesosystem may include interactions among academic, social, family, and work contexts. The exosystem incorporates settings that do not include the individual, but influence an individual's development indirectly. In the context of higher education, the exosystem may include policies regarding financial aid or family income for dependent college students (Renn & Arnold).

The macrosystem, or the outermost system, exerts the influence of culture on the individual and the other systems. The macrosystem includes ideas about gender, race and ethnicity that influence all of the systems in the ecological environment (Renn & Arnold, 2003). The macrosystem also includes structural components of social stratification that influence people's ideas about gender, race, and ethnicity in society and "are both social and concrete and operate to segregate and discriminate against ethnic/racial [sic] groups" (Verdugo, 1995, p. 670). These components influence other people's ideas of minority groups and serve to isolate group members, generate misunderstanding, and increase discrimination of minority groups (Vergudo). The ideas generated in this system affect an individual's microsystem and may negatively influence a minority student's college experience if ideas of race and culture instigate beliefs that increase prejudice, discrimination, and racism.

The chronosystem encompasses the dimension of time and accounts for change and constancy in both the person and the environment. This system is relevant to the college-going population because students are affected by the time period in which they attend college. National or global events that occur during a time period influence college students. For example, the 1960s social movement (Renn & Arnold, 2003) or the World Trade Center bombings that occurred in the early part of the 21st century affect students' experiences in college. The chronosystem can also be used to conceptualize the timing of events as they occur in an individual's life. For example, Renn and Arnold make a distinction between individuals who attend college immediately after high school and those who attend college 10 years after high school when they may have a family and work responsibilities.

Phenomenological Variant of Ecological Systems Theory (PVEST)

Spencer, Dupree, and Hartmann's (1997) PVEST integrates Bronfenbrenner's (1979, 1989, 1993) EST to account for an individual's perceptions of his or her experiences. The PVEST takes into account how an individual perceives experiences that occur in different contexts including the home, school, peer group, and community. My study examined individuals' perceptions of peer support and stressors encountered at the university. An individual's perceptions influence the extent to which a person feels valuable and attributes levels of significance to various individual qualities including abilities, physical attributes, behaviors, and activities. Perceptions of different events influence how an individual copes and adapts to different contexts across the life span.

My dissertation study focused on individuals' perceptions of peer support and whether they believed that peer support would be available when needed. The level of perceived peer support was expected to influence the extent to which individuals were buffered from traditional college stress and minority status stress. This, in turn, was expected to influence an individuals' college adjustment. For example, students who perceived greater levels of peer support were expected to cope better with traditional college stress and minority status stress resulting in greater levels of college adjustment.

SOCIAL SUPPORT

The literature has consistently identified a significant relation between social support and several aspects of the college experience. In 1976, Cobb wrote a seminal article, where he defined social support as information from others that one is "cared for, and loved, esteemed, and a member of a network of mutual obligations" (p. 301). Research findings have indicated that social support is positively related to several aspects of the college experience including college retention (Mallinckrodt, 1988), quality of college life (Abbey, Abramis, & Caplan, 1985), coping with academic stress

(Reifman & Dunkel-Schetter, 1990), satisfaction with social and academic domains of the university (Riggio, Watring, & Throckmorton, 1993), and college adjustment (Hays & Oxley, 1986; Robbins, Lese, & Herick, 1993). Social support has also been found to result in decreased levels of anxiety (Felsten & Wilcox, 1992) and increased levels of physical and mental health (Reifman & Dunkel-Schetter) in the university context.

Many of the research findings that identified a positive relation between social support and various aspects of college adjustment were not based on minority samples. However, the demographics of the college-going population have been changing rapidly leading to a recent upsurge of studies focusing on the importance of social support in minority groups. For example, recent studies have indicated that social support is particularly important for minority students who frequently experience an absence of social support on college campuses (Allen, 1985; 1992). Studies have also demonstrated a positive relation between social support and college adjustment in diverse populations (Alvan et al. 1996; Solberg, Valdez, & Villarreal, 1994; Solberg & Villarreal, 1997; Zea et al. 1995).

Solberg and his colleagues (1994) tested a buffering model of social support on a sample of Latino students (78% identified as Mexican-origin and 22% identified as Latin American origin). According to the buffering hypothesis, students who perceive social support when they are experiencing stress are expected to adjust better than students who do not perceive social support under the same conditions. Solberg and his colleagues assessed whether the buffering model of social support was present by determining, first, whether social support was related to college adjustment and, second, whether social support moderated the relation between stress and college adjustment. Social support was identified as a moderator variable when individuals who perceived social support reported higher levels of adjustment in stressful conditions than individuals who did not

perceive social support under the same stress. They proposed that if an interaction effect was identified it would be conceptualized according to the buffering hypothesis. The results indicated that students who perceived more available support also experienced higher levels of adjustment. However, social support did not moderate the relation between stress and college adjustment meaning that social support did not buffer individuals experiencing stressful conditions. Solberg and Villarreal[2] (1993; as cited in Solberg et al., 1994) previously identified an interaction effect with social support moderating the relation between stress and adjustment. Solberg and his colleagues (1994) indicated that the selection of a stress measure and adjustment measure that were highly intercorrelated and assessed the same construct may explain the absence of an interaction effect in their study.

Several years later, Solberg and Villarreal (1997) explored similar social (e.g., social support) and cognitive (e.g., stress, self-efficacy) factors related to personal adjustment of Latino college students. They based their study on Russell and Petrie's (1992) model of academic adjustment that suggested various factors (e.g., academic, social/environmental, and personality) need to be evaluated when measuring academic adjustment, which can be sub-divided into academic performance, social adjustment, and personal adjustment. They also employed Vega, Warheit, and Meinhardt's model (1985) of Hispanic mental health to determine whether social support buffered students from stressors resulting in enhanced adjustment. The ethnic and racial composition of participants was similar to their previous study and included 311 Latino students (70% identified as Mexican-origin and 30% identified as Latin American-origin). Results indicated that social support was directly related to adjustment; however the buffering model was only partially supported. Solberg and Villarreal found that students who

[2] Solberg and Villarreal (1993) unpublished manuscript.

experienced high levels of stress and perceived greater social support experienced greater personal adjustment than students who perceived less social support. However, students who perceived social support when experiencing less stress experienced less personal adjustment, which was measured by a checklist assessing psychological and physical distress. Solberg and Villarreal have suggested students may experience less personal adjustment because they are providing support for others.

The research findings identified by Solberg, Valdez, and Villarreal (1994) and Solberg and Villarreal (1997) have elucidated the importance of social support as a predictor of college adjustment in Latino students. The findings have also partially suggested that social support buffers individuals from stressful experiences. Based on their findings, Solberg and Villarreal (1997) have suggested that future research should explore the specific ways in which family members and peers enhance college adjustment. However, Solberg and Villarreal only assessed global social support which may include institutional support and faculty support in addition to or in place of family and peer support. Therefore, researchers may consider examining the specific social support resources (e.g., peers, family, faculty) to better determine the specific social supports that benefit college students.

Peer Support

College students have access to social support from several resources including parents, siblings, children, clergy, co-workers, friends, neighbors, and teachers (Cohen & Hoberman,1983; Kahn & Antonucci, 1980). Peer support refers to individuals' perceptions that social resources, or their needs for information, feedback, and support, from peers are satisfied (Procidano & Heller, 1983). Newcomb's (1962) theory on the development of peer groups has underscored the importance of peer groups during the college years. Research has supported Newcomb's theory by demonstrating that White

college students prefer to consult with friends about their college problems (Millen & Roll, 1977; Snyder, Hill, & Derkson, 1972; Tokuno, 1986). Many White college students solicit more peer support because the most "direct, active, and intense" forms of support usually reside in close proximity to individuals (Pearlin, 1985, p. 44). When individuals are in college, they frequently have greater contact with people who attend the university and less contact with their family members and peers living in other locations.

Peer support in Mexican-origin individuals

Peer support has also been identified as an influential factor of college adjustment in students of Mexican-origin (Gandara & Osugi, 1994; Young, 1992). Although research has indicated the importance of peer support in White students and Mexican-origin students, some findings have indicated that the sources and characteristics of social support differ for White students and minority students (Kenny & Stryker, 1996). Therefore, conclusions about the function of peer support for White students must not be generalized to students of Mexican-origin.

Peer groups may be helpful for Mexican-origin students to "make sense" of the college environment by facilitating the development of skills needed in college (Hurtado & Carter, 1997, p. 338). For example, many Latino students have opted to become involved in particular groups and activities that fulfill certain needs and connect them to the university (Hurtado & Carter). Among Latino students, emotional support such as advice, encouragement, and socializing received from family and friends appears to be more important for college adjustment than material or physical aid, and may even constitute the best type of support a peer group can provide. Emotional support may help minority students to adapt to culture shock or the incongruity experienced between their culture of origin and that of the university. It may also help some Latino students overcome their lack of academic preparation (Quevedo-Garcia, 1987; Alvan et al. 1996).

Rodriguez and colleagues' (2003) study on whether family members or friends play a more supportive role for Latino college students played a significant role in the development of my dissertation because it was one of the few identified studies that included a variable of perceived peer support in the examination of well-being and distress. Specifically, Rodriguez and her colleagues were interested in determining whether family support or peer support accounted for more variance in psychological adjustment and whether family or peer support moderated the relation between stress and adjustment. Participants included 338 Latino (228 Mexican Americans and 110 Central Americans) college students attending a predominantly Latino University. Peer support and family support were measured by a revised version of the Perceived Social Support From Friends (PSS-Fr) Scale and Family (PSS-Fa), respectively. Both measures consisted of 29 items and assessed the extent to which family and friends satisfied an individual's need for support, information, and feedback. The results indicated that peer support made a greater contribution than family support to well-being and only peer support protected students from psychological distress. The ethnic composition of the university may have contributed to the finding that peer support was more important than family support. One explanation may be that the Latino students were in a context where their peer groups were more equipped than family members, especially family members who did not attend college, to provide support for college stress, and at the same were more cognizant of cultural issues since students were from similar backgrounds.

I have extended Rodriguez and colleagues' (2003) research by examining peer support more closely in Mexican-origin college students and by applying the model in a predominantly White university. Specifically, I examined whether perceived peer support influenced college adjustment, second, whether perceived peer support protected Mexican-origin students from minority status stress (i.e., prejudice and discrimination)

and traditional college stress (i.e., academic, financial and relationship problems), and third, whether acculturation level influenced the relation between perceived peer support and traditional college stress, minority status stress, and college adjustment.

Cultural Variables

Social support in college may be particularly important to individuals of Mexican-origin because of the cultural emphasis on collectivistic and interdependent values (Harrison, Wilson, Chan, & Buriel, 1990; Triandis, Bontempo, Villarreal, Asai, & Lucca, 1988). Prior research has suggested that social support predicts adjustment in Latino populations because of its' cultural relevance (Dane, 1980; Dugan, 1983; Escobar & Randolph, 1982; Keefe et al., 1978). The following section explores personalismo and familismo, key cultural variables, to illustrate the importance of social support in Mexican culture. As indicated previously, these two cultural variables are located in an individual's macrosystem and reflect tenets of Latino culture. Personalismo and familismo also exert great influence on the microsystem and affect the ways in which individuals engage in the world around them. Given that familismo underscores the importance of social support from family members, a rationale for the inclusion of peer support as opposed to family support will also be addressed.

Personalismo

Peer support may be especially important to students of Mexican-origin because of personalismo, a cultural value that emphasizes connection to others. Antshel (2002) defined personalismo as the Latino tendency to prefer personal relationships over institutional ones. For example, she indicated that when asked to name their health care provider, Latinos are more likely to name their doctor as oppose to the healthcare institution. Other researchers have defined personalismo similarly; for example, Choca

(1979) defined it as a warm and intimate way of relating to others while Paniagua (1994) defined personalismo as an inclination to be associated with people as opposed to institutions. Comas-Diaz (1989) explained that Latinos prefer to engage with others based on their personal impression of the person as opposed to other factors such as socioeconomic status or achievements.

Familismo

Familismo has been cited as a core value in Latino culture (Zinn, 1982). It is a cultural value "that involves an individual's strong identification with and attachment to his or her nuclear family and extended families and strong feelings of loyalty, reciprocity, and solidarity among members of the same family" (Cauce & Domenech-Rodriguez, 2002; Cortes, 1995; Lugo Steidel & Contreras, 2003, p. 313- 314, Marin & VanOss Marin, 1991; Sabogal, Marin, Ortero-Sabogal, & Marin, 1987). Many individuals of Mexican-origin receive emotional support from family members (Keefe, Padilla, & Carlos, 1978; Ruiz, 1981). Essential characteristics of familismo include the value individuals place on family and one's attitudes toward family. The exploration of the importance of peer support to Mexican-origin students does not preclude the significance of family support during college. In fact, a large part of the literature has focused on the importance of familial support as a facilitator of college adjustment in Latino populations (Marin & Marin, 1991).

Hurtado and Carter (1997) found that it is not necessary for Latino students to be emotionally and physically separated from their family to successfully transition and become integrated in the university context. Their findings have also suggested that students may need interdependence from their families, as opposed to independence from their families during the transition to college (Hurtado & Carter). Another study by Hurtado, Milem, Clayton-Pederson, and Allen (1996) indicated students who were able to

separate from their families while maintaining a relationship with them experienced higher levels of personal-emotional adjustment during the transition to college.

Rodriguez and her colleagues (2003) have explained that family support and peer support may serve different functions for students. They added that college students may activate peer or family support in different circumstances which reflects the extent to which the source is able to provide relevant information, specific types of support, or even tangible aid (Fracasso & Busch-Rossnagel, 1992; Procidano & Heller, 1983). For example, Hurtado and her colleagues (1996) examined factors related to college adjustment in a sample of Latino students. Their findings demonstrated that maintaining family support and socializing with peers were related to adjustment. Rodriguez and her colleagues (2003) examined a sample of Latinos attending a commuter, predominantly Latino University. They found that when ethnicity, gender, socioeconomic status, level of acculturation, and stressors were controlled, perceived support from family and peers each contributed to well-being. The results also indicated that support from peers accounted for more variance in positive well-being than family support, and was the only source of support that protected individuals from feelings of distress. Rodriguez and colleagues have speculated that friends may be a more relevant and effective source of support than family members for college related concerns. Therefore, it is important to examine the roles of family and peer support independently (Rodriguez et al.) because both sources of support appear to play an important role for students.

The Buffering Hypothesis

The development of a social support network is of great import for college students because it can protect them from the stress associated with college life (Cohen & Syme, 1985; Sarason, Sarason, & Pierce, 1990; Trickett & Buchanan, 1997) thus enhancing their well-being (Trickett & Buchanan, 1997) and facilitating effective

adjustment (Cohen & Wills, 1985; Kohut, 1984). The notion that social support protects individuals from pathology in the presence of environmental stressors is known as the "buffering hypothesis" (Caplan, 1974; Cassel, 1974; Cobb, 1976). According to the buffering hypothesis, social support is activated during stressful periods of time. During less stressful time periods, adjustment levels for individuals are similar whether or not they perceive social support. As students' level of stress increases, social supports become activated and buffer individuals from the negative consequences of stress. Therefore, students with higher perceptions of support during stressful periods adjust better than those who perceive less support to be available.

Caplan (1974), Cassel (1974), and Cobb (1976) wrote the seminal papers on the buffering hypothesis. In his paper, Cassel (1974) made several important points addressing the role of psychosocial processes in disease etiology. Cassel has stated that some psychosocial factors are interpreted as stressors, and subsequently increase an individual's susceptibility to disease by altering the "endocrine balance in the body" (p. 473). Other psychosocial factors may serve as a protective function by buffering an individual from the negative consequences associated with exposure to a stressful situation, such as the development of disease.

Cassel (1974) has suggested social support is an important psychosocial factor and protects individuals from stressors that stimulate the development of disease. He argued that the disruption of existing social support by various environmental stressors triggers insufficient or unclear feedback leaving individuals in a state of imbalance decreasing their resistance to disease. The activation of social feedback in turbulent situations elicits a buffering function whereby individuals are protected from various types of pathology. Cassel advocated for the role of social support as an intervention in

stressful situations rather than decreasing or manipulating an individual's exposure to environmental stimuli.

Cassel (1974) made an important point that psychosocial stressors are idiosyncratic and affect individuals differently. He explained that an individual's perception or interpretation of a stressor helps to determine the effect the stressor has on the individual. Cobb's (1976) research has supported Cassel's viewpoint that sufficient social support can buffer individuals in the face of crises. Cobb has provided an overview of social support as a moderator of life stress throughout the life cycle. He identified previous research that demonstrates the beneficial health effects of social support as well as situations where social support has had no effects. He stated that individuals are protected during crises, such as life transitions because they feel cared for, valued, and connected to others, which in turn activates their ability to cope and adjust. Caplan (1974) also contributed to the notion of a buffering phenomenon by examining the importance of social support during life transitions. He has explained that social support provides feedback to individuals about themselves and confirms their expectations of others.

Researchers have applied the buffering hypothesis to examine whether social support buffers Latino college students from the effects of stress (Solberg et al. 1994; Solberg & Villarreal, 1997; Rodriguez et al., 2003). These researchers based their hypotheses on a Hispanic model of mental health developed by Vega and her colleagues (1985). This model has proposed that background factors (e.g. acculturation) and social factors (e.g. social support) directly influence adjustment and moderate the relation between stress and adjustment. Thus, the extent to which stress influences adjustment is influenced by students' perceptions of social support.

My study has extends prior research by examining whether perceived peer support buffers Mexican-origin college students from minority status stress and traditional college stress. Perceived support, also known as availability support or functional support, refers to an individual's perception that social resources are available or the perception that social resources are provided by one's social support network (received support; Cohen, Gottlieb, & Underwood, 2000). Researchers have advocated for the importance of perceived social support (Barrera, 1981; Cohen & Hoberman, 1983; Cohen & McKay, 1984; Cohen & Wills, 1985; Gore, 1978; Henderson, Byrne, Duncan-Jones, Scott & Adcock, 1980; House, 1981; Kessler & McLeod, 1985; Procidano & Heller, 1983; Shaefer, Coyne, & Lazarus, 1981; & Wilcox, 1981) because it reduces adverse effects of stress or buffers individuals by fostering a less threatening perception of stressful situations (House). Perceived support may also influence one's appraisal of stressors, knowledge of coping strategies, and self-concept (Cohen, McGowan, Fooskas, & Rose, 1984). Consequently, individuals may experience "increased overall positive affect and an elevated sense of self-esteem, stability and control over the environment" (Cohen & Syme, 1985, p. 6). This facilitates adjustment and protects individuals from psychological distress (Heller & Swindle, 1983).

In my dissertation, the buffering hypothesis was expected to occur in the microsystem, which included the self, peers, stress, cultural variables, and the university context. It was expected that perceived peer support would buffer individuals from the negative effects of traditional college stress and minority status stress. Students who perceived higher levels of peer support were expected to be buffered from the negative effects of the stressors. Alternatively, students who did not perceive peer support were not expected to be buffered from the negative effects of minority status stress or traditional college stress and were expected to have difficulties adjusting to college.

Acculturation, a cultural variable, has also been examined in the contexts of these relations because it was expected that individuals with varied levels of acculturation would perceive different amounts of peer support. Acculturation, also located in the microsystem, is in a direct and dynamic relation with the other contexts in the microsystem including an individual's peers, family, neighborhood, and school. It was expected that individuals with different levels of acculturation would experience these contexts differently, thus influencing the extent to which individuals were buffered from the negative effects of stress and adjusted to college.

ACCULTURATION

Research on acculturation has existed since the turn of the 20th century and has received increased attention in the literature as a result of the growth of minority groups in the U.S. (Kim & Abreu, 2001; Negy & Woods, 1992). Acculturation is important to account for in research on minority groups because cultural factors may influence an individual's psychological functioning (Rogler, Cortes, & Malgady, 1991). Another aspect of culture to consider is that "culture and cultural change are multidimensional constructs and that measures of acculturation only provide a partial assessment of cultural variables" (Arbona, Flores, & Novy, 1995, p.613). Therefore, it is important to consider that measures of acculturation may not capture the complexity of an individual's experience.

Negy and Woods (1992) have discussed the theoretical developments, methodological issues, and measurement of acculturation in attempt to underscore the value of acculturation in understanding research on Latinos. They have provided several definitions of acculturation with the earliest in 1980 in order to illustrate the progression of the definition. The definitions and measures of acculturation have become more

integrative and comprehensive over the years while the earlier definitions and measures appear to simplify the acculturation process.

One early definition of acculturation was proposed by Stonequist (1935, as cited in Garza & Gallegos, 1995), which he coined the "marginal person" theory, where individuals survive on the outskirts of both cultures and lack a connection to either one. In order to overcome this marginalization, individuals are forced to choose between one culture and the other. The notion of "relinquishing" traits of one culture in order to identify more with a second culture was common to earlier notions of acculturation and seemed to simplify the complexity inherent in the acculturation process because it failed to address the factors that enabled individuals to adapt to a "complex multicultural society" (Garza & Gallegos, 1995; Kim & Abreu, 2001).

The unilinear or unilevel model of acculturation was another early conceptualization of acculturation. Mendoza (1984) has explained that in a unilevel model of acculturation, individuals are placed on a continuum relative to other individuals from their culture and a score is derived indicating the acculturation level of the individual (p. 63). The two end points on the continuum represented involvement in the culture of origin and involvement in the "host" culture (Kim & Abreu, 2001). Many unilevel models are based on one variable; examples of these variables include behavior, values, social relationships, language use, and food (Magaña, Rocha, Amsel, Magaña, Fernandez, & Rulnick, 1996). Mendoza provided an example using the variable of language to demonstrate the model. He explained that if individuals are as fluent in English as White individuals, they are highly acculturated whereas individuals who speak little to no English may be labeled as less acculturated. A major limitation of this model was that it failed to account for the construct of biculturalism, which reflects active participation in both cultures (Ramirez, 1984) and it failed to acknowledge the

complexity of variables involved in the acculturation process. Another model that has been employed less frequently than the unilevel model is the bi-level model of acculturation (Mendoza, 1984). This model attributed that an individual "acquires or fails to acquire the customs of an alternate culture while retaining or failing to retain the norms of his or her native culture" (p. 64).

Though my dissertation does not directly address the experiences of bicultural individuals, Ramirez, who has written extensively on biculturalism and multiculturalism, has underscored the importance of contextual factors. He has noted that bicultural and multicultural "models designed for Mexican Americans in one area of the country….may not be appropriate for Mexican Americans living in other sociocultural environments" (p. 79). The notion that an individual "can alter his or her behavior to fit a particular social context" is the premise of the alternation model (p. 339, LaFromboise, Hardin, Coleman, & Gerton, 1993). LaFromboise and her colleagues indicated that the alternation model "assumes that it is possible for an individual to have a sense of belonging in two cultures without compromising his or her sense of cultural identity" (p. 399). The importance of context in accounting for acculturation has been addressed by other researchers as well. Sue (2003) highlighted the importance of accounting for a person-environment fit when examining the construct of acculturation. He explained that acculturation status may positively or negatively influence an individual's experience depending on the given context. Trimble (1989) coined this experience "situational acculturation." Trimble (2003) has explained that the context may influence an individuals' "cognitive and perceptual appraisals; in turn, these appraisals influence behavioral outcomes" (Trimble, 2003, p. 8). Fitzgerald (as cited in Gallegos & Garza, 1995) also acknowledged the importance of context in his definition of acculturation. He explained acculturation "not as a simple linear process of change but as a complex, dynamic process wherein the

direction of change can be reversed in any acculturative stage by a wide variety of situational factors" (p. 6). Therefore, in the context of a predominantly White university individuals' acculturation levels may influence their perception of peer support thus influencing their level of adjustment.

Acculturation and Social Support

Based on the cultural significance of social support (i.e., personalismo & familismo) for individuals of Mexican-origin, one might expect researchers to find a significant relation between social support and acculturation. No identified studies have specifically examined the relation between acculturation and social support; however, related research has suggested acculturation and social support influence one another. For example, research has indicated that Mexican American college students who are able to talk with others about their problems are better able to cope with acculturation difficulties (Mena, Padilla, & Maldonado, 1987). Thus, individuals who receive support when experiencing acculturative stress cope better.

Baron and Constantine (1997) suggested that when conducting therapy with Chicano college students, therapists should assess acculturation level because it frequently influences the "type and intensity of services" needed (p. 122). Though therapy and social support are different constructs, therapy is a service rendered to individuals in need of support. If therapy services needed are likely to vary as a function of an individual's acculturation level, it is likely that the level of social support needed to enhance adjustment will also be influenced by acculturation level.

Due to the limited nature of research findings between social support and acculturation in Mexican-origin college students, further investigation is warranted. A greater understanding of the relation between acculturation and social support can determine the ways in which acculturation affects perceptions of social support and

subsequent adjustment. Not only could this be valuable to Mexican-origin students experiencing difficulties in college, but it could also extend research on the cognitive component of acculturation.

Acculturation and Adjustment

Dana (1996) argued for the importance of controlling for acculturation when examining psychopathology, an indicator of maladjustment, in Latino individuals. His rationale was that acculturation influences the extent to which individuals experience psychopathology. For example, Burnam, Hough, Karno, Escobar, and Telles (1987) found that Mexican American women who were more acculturated in American society presented with more symptoms of depression and anxiety. They defined acculturation as "the psychosocial changes which occur when individuals originating from one culture immigrate to a new host culture" and measured it with a 26-item scale based on the Acculturation Scale for Mexican Americans (ARSMA, Cuéllar, Harris, & Jasso, 1980) and the Behavioral Acculturation Scale (Szapocznik, Scopetta, Aranalde, Kurtines, 1978; Burnam et al., p. 90). In the context of Burnam and colleagues' study, it was necessary to control for acculturation in order to study the phenomenon of interest, but in the context of my dissertation, acculturation was a variable of interest examined to determine the extent acculturation influenced college adjustment in students of Mexican-origin.

Research findings on the relation between acculturation level and adjustment have been equivocal. While many studies have illustrated a strong relation between low acculturation and adjustment, others have provided evidence that high levels of acculturation are closely linked with adjustment. The following section explores research that supports both of these relations and concludes with a rationale for continued exploration in this area.

Buriel (1984) explained that Mexican-origin students who adjust well in school may have close connections to their Mexican roots. Research conducted as early as the 1960s illustrated this occurrence. For example, Kimball (1968) examined academic achievement in Mexican American sixth graders and found that students who were born in Mexico or had parents born in Mexico had higher levels of achievement, an indicator of adjustment, than students with both parents born in the U.S. Two years later, Cordova (1970) found that as acculturation levels increased in urban middle-class sixth graders, their levels of achievement decreased. He hypothesized that increased acculturation levels were related to greater feelings of powerlessness and an inability to control positive outcomes in an educational context. Vigil and Long (1981) found that earlier generation Mexican American high school students received higher grades than later generation students.

The trend of students who identify closely with their Mexican American roots experiencing greater levels of academic success has been identified in college populations as well. For example, Mexican American students who maintained a connection to their Mexican-American roots stayed in school longer and earned better grades than those who did not (Buriel, 1984). Buriel explained that Mexican Americans familiar with their roots adapt better because they have a greater awareness of "the rewarding and constructive elements of their culture" providing a framework to guide their "thinking and behavior" (p. 126). Their knowledge and experience allows them to recognize false stereotypes associated with their culture. By feeling secure with their background, they experience a sense of identity and self-worth that enables them to explore White culture without having their identity threatened. Individuals who have the capacity to do this are commonly referred to as bicultural and can successfully interact in

the Mexican-American and White cultures. It appears that their connection to their culture serves to buffer them from the negative or forceful pressures of White society.

While several research studies have indicated that lower levels of acculturation enhance adjustment, other studies have illustrated that higher levels of acculturation are optimal for adjustment. The literature has suggested that more acculturated Mexican American children experience greater levels of intellectual performance (Valencia, Henderson, & Rankin, 1985) and that acculturation influences the extent to which migrant students succeed or fail in school (Franco, 1983; Gonzales & Roll, 1985, Kagan, 1981). More recently, Hurtado and Guavain (1997) found that acculturation was predictive of college attendance among Mexican American adolescents. Specifically, the authors found that more acculturated Latinos were more like to attend college and have highly educated parents to aid them through the college application process whereas less acculturated Latinos were less likely to attend college and less likely to have highly educated parents. Manaster and Chan (1992) found that academically successful Latino students who were more acculturated experienced greater success than individuals who were less acculturated. They explained that more acculturated individuals traveled on a "success breeds success" path while the less acculturated individuals frequently experienced the "culture of poverty" path (p. 136). Lopez, Ehly, and Garcia-Vazquez (2002) also found that individuals' more integrated in White culture tended to have a higher level of academic achievement in a sample of Mexican-origin 9th graders.

There are several reasons the research on the relation between acculturation and adjustment have presented mixed findings. As indicated by LaFromboise and her colleagues (1993), Ramirez (1984), and Sue (2003), acculturation level may be context-specific, meaning that it may be influenced by the current situation. This perspective is consistent with Bronfenbrenner's EST in that a number of contextual factors are likely to

influence an individual at any given time, thus modifying an individual's acculturation level. Some of these factors may include proximal factors that reside in the microsystem including an individual's age, grade, and school, and may also include more distal factors such as the year and an individual's perceived stressors. Therefore, future research is needed to explore the ways in which acculturation is influenced in different situations. My dissertation specifically explored the influence of acculturation on the relation between perceived peer support and three different factors: college adjustment, minority status stress, and traditional college stress in a sample of Mexican-origin freshmen and sophomores attending a large predominantly White university.

PROPOSED DISSERTATION STUDY

The purpose of my study was to explore the importance of perceived peer support to the adjustment of Mexican-origin college students attending a predominantly White university, with special attention given to the function of perceived peer support in the face of minority status stress and traditional college stress. Because prior research has focused predominantly on a general construct of social support and family support, only minimal data is available on the specific variable of peer support. Also, as opposed to previous studies that have examined several Latino groups combined, my study focused exclusively on students of Mexican-origin in order to illuminate the diversity of within group experiences.

Specifically, my study aimed first to find whether perceived peer support contributed to the overall college adjustment of Mexican-origin college students. Given that many minority students attending a predominantly White university experience minority status stress and traditional college stress, the study also assessed the extent to which perceived peer support buffered Mexican-origin students from these stressors. A second major goal of the study was to examine the heterogeneity within the Mexican-

origin population to determine whether acculturation status influenced the relation between perceived peer support and minority status stress, traditional college stress, and college adjustment.

CHAPTER THREE

Methods

The present study examined specific aspects of peer support in a sample of Mexican-origin freshmen and sophomores attending a predominantly White university. As previously indicated, only 5% of Mexican-origin individuals who decide to pursue a degree in higher education graduate from college (Chapa & Valencia, 1993). This study focused on freshmen and sophomores in hopes of being able to gain more understanding of Mexican-origin individuals experience with peer support and their subsequent adjustment in the midst of their transition to a predominantly White college campus. An increased understanding of students' experiences at college may be helpful in terms of creating interventions that decrease the attrition rate of these students. Four major research questions were addressed: (1) Does perceived peer support predict college adjustment in students of Mexican-origin? (2) Does perceived peer support protect Mexican-origin students from minority status stress? (3) Does perceived peer support protect Mexican-origin students from traditional college stress? (4) Does acculturation status predict the relation between perceived peer support and traditional college stress, minority status stress, and college adjustment? Focus groups were facilitated to gain an increased understanding of Mexican-origin student's experiences with perceived peer support at The University of Texas at Austin.

This chapter describes the methods used in the present study. The section opens with a description of the ethnic and racial composition of the student population at The University of Texas at Austin during the fall of 2005. The methodology comprises two components: the focus groups and the data collection. The procedures and participants of

each component are addressed, and are followed by a description of the instruments. I conclude by addressing the research questions and hypotheses.

RACIAL AND ETHNIC COMPOSITION OF THE UNIVERSITY OF TEXAS AT AUSTIN

The University of Texas at Austin is a predominantly White campus. In the fall semester of 2005, the undergraduate population comprised 74% (n = 36,874) of the total student population with Latino students comprising 16.1% (n = 5,919) of the undergraduate population (see Table 2).

Table 2: *Racial and Ethnic Composition of The University of Texas at Austin Student Population*

	Undergraduate		Graduate		Total Student Population (TSP)	
	N	%	N	%	N	%
Racial & Ethnic Category						
White	21588	58.5	6097	53.5	28537	57.4
Asian American	6270	17	768	6.7	7123	14.3
Hispanic	5919	16.1	864	7.6	7013	14.1
African American	1482	4	284	.5	1843	3.7
American Indian	162	.4	46	0.4	218	0.4
Foreign	1292	3.5	3044	26.7	4421	8.9
Unknown	165	0.4	288	2.5	541	1.1
Total	36874 TSP	74%	11391 TSP	22.9%	49696 TSP	100%

FOCUS GROUP PROCEDURES

Two focus groups were facilitated to create additional questions specific to Mexican-origin student's experiences with peer support at The University of Texas at Austin that were not addressed by the measure used in the study. In the current study, Mexican-origin has been defined as any student born in Mexico, or any student having at least one parent or grandparent born in Mexico.

Permission to conduct the focus groups was obtained from The University of Texas at Austin Institutional Review Board (IRB). The ethical standards of the American Psychological Association and The University of Texas' "Policies and Procedures Governing Research with Human Subjects" were followed from the onset of the study through its completion to insure the ethical treatment of all participants and the confidentiality and anonymity of their responses.

After approval from the Institutional Review Board of The University of Texas at Austin, an academic advisor from the Center for Mexican American Studies and an academic affairs administrator from the Office of the Dean of Students at The University of Texas at Austin were contacted and they agreed to send an electronic letter to students who would be eligible to participate in the focus groups. The electronic letter (see Appendix D) provided an explanation of the purpose of the study and invited interested students to select as many of the 10 tentative two- hour time slots that they would be able and willing to attend. Interested students participated in one of two different two-hour sessions.

The academic affairs administrator from the Office of the Dean of Students at The University of Texas at Austin sent an electronic letter inviting members of the Latino Leadership Council (an umbrella organization that includes over 20 Latino student organizations at The University of Texas) to participate in the focus groups. The academic advisor from the Center for Mexican American Studies sent an electronic letter inviting all undergraduate students majoring in Mexican American Studies to participate in the study. She also forwarded the invitation to the Latino Leadership Council.

The Latino Leadership Council includes the following organizations: Mexican American Health Professions, Mexican American Association of Pharmacy Students, Mexican American Culture Communication, Mexican Public Policy at LBJ, Mexican

Student Association, Grupo Flor y Canto, Association of Hispanic Nursing Students, Hispanic Scholarship Fund Scholar Chapter, Hispanic Business Student Association, Society of Hispanic Professional Engineers, Omega Delta Phi, Latino Leadership Council, LULAC Council, Kappa Delta Chi Sorority, Latinos Involved with Neighbors and Communities (LINC), Organizacion Latino Americana (OLA), Sigma Lambda Beta Latino Fraternity, Texas Latin Dance Club, La Fe (Latino Fellowship), Lambda Theta Phi Latin Fraternity, Association of Latino Professionals, Lambda Theta Alpha Latin Sorority, Alpha Psi Lambda Interest Group, Sigma Lambda Gamma National Sorority, and Movimiento Estudiantil Chicano/a de Aztlan (MECHA).

During both focus group sessions, participants met in a computer lab in the College of Education to complete a web based study, which included an informed consent (see Appendix E), a demographic form and five measures (see Instruments). Time of completion for each focus group participant was recorded in order to provide an accurate time estimate to participants in the data collection phase of the study. All seven participants completed the study in approximately one hour.

Next, focus group participants moved to a small conference room in the College of Education. The informed consent the participants signed prior to the web based portion of the study included several statements of confidentiality including that the information discussed during the focus group must not be repeated outside of the room to protect the integrity of the study and the privacy of other participants. The informed consent also stated that the session would be audio taped. On the transcribed document, individual's names were replaced with numbers to ensure confidentiality.

Participants received the questionnaires in paper-pencil format to provide feedback to the principle investigator with regard to questionnaire instructions, wording, clarity, ease of use, and other comments and suggestions. Following feedback, the

principal investigator facilitated a discussion meant to explore the participants' experiences with perceived peer support during their tenure at The University of Texas at Austin. All participants received 20 dollars for participating.

FOCUS GROUP PARTICIPANTS

There were a total of seven participants in the focus groups. Three juniors participated in the first session which included two males and one female. Four seniors participated in the second session which included three females and one male. Juniors and seniors were recruited because it was expected that students with a longer tenure at the university would be able to provide more detailed information about their experiences with perceived peer support at The University of Texas at Austin. Please refer to Appendix F for a list of the questions developed for the study.

DATA COLLECTION PROCEDURES

After the amendment with the peer support questions (see Appendix F) developed for the study was approved by the Institutional Review Board of The University of Texas at Austin, approval to gain access to the Educational Psychology subject pool at The University of Texas at Austin was requested. Additionally, the academic advisor from the Center for Mexican American Studies and the academic affairs administrator from the Office of the Dean of Students at The University of Texas at Austin were contacted and agreed to send an electronic letter to students who would be eligible to participate in the study. The electronic letter provided an explanation of the purpose of the study with a link to the questionnaires (see Appendix G).

The academic affairs administrator from the Office of the Dean of Students at The University of Texas at Austin sent an electronic letter inviting all Mexican-origin freshmen and sophomores, and members of the Latino Leadership Council to participate

in the study. The academic advisor from the Center for Mexican American Studies sent an electronic letter inviting all undergraduate students majoring in Mexican American Studies and members of the Latino Leadership Council to participate in the study.

Participants were also recruited from the Educational Psychology subject pool during the fall and spring semesters of the 2005-2006 school year, which included only Latino freshman and sophomores as requested by the researcher. They received the same electronic invitation to participate in the study.

The electronic invitation explained the purpose of the study and a link to the web based study. Participants who elected to access the study were immediately linked to the informed consent and provided consent before beginning the study. The informed consent (see Appendix H) addressed the confidentiality of responses, voluntary participation, and that participants may discontinue their participation in the study at any time and their responses will be discarded. After completing the informed consent, participants were provided with instructions to complete the study (see Appendix I). Participants completed a demographic survey and five questionnaires that will be discussed in the following section. In the event participants experienced emotional distress following the completion of the measures, the final page of the online survey contained the telephone number of The University of Texas at Austin Counseling and Mental Health Center.

Participants who were not recruited from the Educational Psychology subject pool were offered a chance to enter a drawing for participation in the study. They competed with other participants for one of six $50 cash prizes for participating. Six names were drawn at the conclusion of data collection. Only those students who completed the web based survey were eligible for the drawing. Participants from the Educational Psychology subject pool received one hour of research credit for their participation.

DATA COLLECTION PARTICIPANTS

The data collection phase of the study focused on the experiences of college freshmen and sophomores who identified as being of Mexican-origin. An additional inclusion criterion for participation was being between the ages of 17 and 22 years old. The number of participants in the study does not reflect the actual number of individuals who completed the study. Approximately 30 individuals were excluded from the study because they did not meet criteria for the study. Twenty-six participants were excluded because they were juniors (n = 15) or seniors (n = 11) in college, two participants were excluded because they were 24 and 30 years old, and two other participants were excluded because they were of Puerto Rican descent.

DEMOGRAPHIC INFORMATION

Participants completed a demographics form requesting the following information: age, gender, year in college, preference of ethnic label, generation living in U.S., and parents' education (see Appendix J). The following information regarding participants' peer group was also collected: ethnic and racial composition of peer group, comfort associating with peers in different ethnic and racial groups, quantity of peers, and importance of peers.

The total sample of 136 participants included individuals ranging in age from 17-22 with a mean age of 18.67 (SD = .741). A majority of the sample was female (67.6%, n = 92), while males represented 32.4% (n = 44). More freshmen participated (58.1%, n = 79) than sophomores (48.9%, n = 57). Regarding mother's education, 53.6% graduated high school (n = 73), 16.2% graduated college (n = 22), and 8.8% earned a master's degree (n= 12). Regarding father's education, 47% graduated high school (n = 64), 18.4% graduated college (n = 25), 5.1% earned a master's degree (n = 7), and 1.5% earned a doctorate degree (n = 2).

A majority of the sample (77.2%, n = 105) wished they had more friends at The University of Texas at Austin. Approximately 70% of the participants rated their peers as important. This was indicated by a rating of a 7, 8, 9, or 10 on a 10 point scale measuring importance of peers with a rating of 10 being equal to peers are extremely important. Even though peers were rated as important to a majority of the students, 71.3 % of the participants indicated that family support was more important than peer support at college. Please refer to Table 3 for a summary of demographic information.

Table 3: *Demographic Information on Study Participants*

	Female		Male		Total	
	N	%	N	%	N	%
Generation in U.S.						
First Generation	5	5.4	3	6.8	8	5.9
Second Generation	38	41.3	18	40.9	56	41.2
Third Generation	10	10.9	9	20.5	19	14
Fourth Generation	23	25	7	15.9	30	22.1
Fifth Generation	13	14.1	4	9.1	17	12.5
Other	3	3.3	3	6.8	6	4.4
Ethnic/Racial Majority of Peer Group						
Mexican-origin	28	31.5	10	25	38	27.9
White	47	52.8	28	70	75	55.1
African American	3	3.4	1	2.5	4	2.9
Asian	5	5.6	0	0	5	3.7
Other	6	6.7	1	2.5	7	5.1
Most Comfortable Associating with....						
Mexican-origin peers	53	59.6	26	65	79	61.2
White peers	16	8.0	6	5	22	17.1
African American peers	0	0	1	2.5	1	.8
Asian peers	2	2.2	0	0	2	1.5
Other peers	18	20.2	7	17.5	25	18.4

INSTRUMENTS

Participants were asked to complete the following instruments: the College Stress Scale (CSS; Rodriguez, Myers, Morris, & Cardoza, 2000), the Minority Status Stress Scale (MSSS; Smedley, Myers, & Harrell, 1993), scale one of the Acculturation Rating Scale for Mexican Americans-II (ARSMA-II; Cuellar, Arnold, & Maldonado, 1995), the Perceived Social Support from Friends Scale (PSS; Procidano & Heller, 1983), and the Student Adaptation to College Questionnaire (SACQ; Baker & Siryk, 1984, 1986, 1989). Permission to use these instruments was granted by the respective authors. Instruments were only offered in English. A summary of all measures used in the study appear in Table 4.

Table 4: *Summary of Instruments*

Instrument	Number of Items	Number of Subscales	Range of Scores	Reliability Chronbach's Alpha
College Stress Scale (CSS)	18	3	18-90	.88
Academic Stress Subscale				.85
Social Stress Subscale				.73
Financial Stress Subscale				.81
Minority Status Stress Scale (MSSS)	33	5	33-165	.96
Social Climate Stresses				.94
Interracial Stresses				.88
Racism & Discrimination Stresses				.92
Within-Group Stresses				.85
Achievement Stresses				.88
Acculturation Rating Scale for Mexican Americans-II (ARSMA II)	30	Only using scale 1	30-150	
Anglo Orientation Scale (AOS)				.77
Mexican Orientation Scale (MOS)				.92
Perceived Social Support from Friends Scale (PSS)	20	1 (total score will be used)	20-100	.63
Student Adaptation to College Questionnaire (SACQ)	67	1(overall college adjustment will be used)	67-603	.94

Note. The CSS and MSSS scales range from 1 (not at all stressful) to 5 (extremely ranges from 1 (applies very closely to me) to 9 (doesn't apply to me at all). stressful). The ARSMA II scale ranges from 1 (not at all) to 5 (extremely often or almost always). The PSS ranges from 1 (strongly disagree) to 5 (strongly agree).

Traditional College Stress

Traditional college stress was assessed by an 18-item College Stress Scale (CSS; Rodriguez et al., 2000) assessing students' levels of stress in the following domains: academic, social, and financial (see Appendix K). The three subscales, each corresponding to one of these domains, were determined by a principal components analysis with varimax rotation and accounted for 54.4% of the variance. The academic

stress subscale comprised 7 items and accounted for 33.8% of the variance, the social stress subscale comprised 6 items and accounted for 11.1% of the variance, and the financial stress subscale comprised 5 items and accounted for 9.6% of the variance.

Rodriguez and colleagues (2000) created this measure by selecting items from other stress scales used with Latino college students (Munoz, 1986; Solberg, Hale, Villarreal, & Kavanaugh, 1993) and from statements provided by 82 Latino and White college students who participated in a pilot study. Items were included if they were experienced as stressors associated with being a college student or with being an adult. Individuals rated the statements on a 6-point Likert scale, ranging from 0 (does not apply) to 5 (extremely stressful). Rodriguez and her colleagues (2003) found a good internal consistency (Cronbach's α ranged from .80 to .84) among the items on the three subscales and a good reliability (Cronbach's α = .88) after the items were averaged to create a total traditional college stress score in a sample of Latino (228 Mexican American, 110 Central American) students.

For the purpose of this study, the items were rated on a 5-point scale ranging from 1 (does not apply) to 5 (extremely stressful). This particular rating scale was implemented because it was important for the response types to be consistent across questionnaires to not confuse the participants. This modification did not threaten the reliability of the measure. The items on the academic stress subscale (Cronbach's α = .85), the social stress subscale (Cronbach's α = .73), and the financial stress subscale (Cronbach's α = .81) evidenced good reliability. The items in the measure were summed to generate a total traditional college stress score, which also demonstrated good reliability (Chronbach's α = .88).

Minority Status Stress

Minority status stress was assessed by a 33-item Minority Status Stress Scale (MSSS; Smedley, Myers, & Harrell, 1993; see Appendix L). Smedley and colleagues selected items for the measure from other student stress scales (Edmunds, 1984; Zitzow, 1984) and from feedback provided by a pilot sample of 100 minority students. These items represented stressors specific to minority students and student stressors that have been compounded by students' minority status. Students rated each item on a six point scale, from 0 (does not apply) to 5 (extremely stressful). Five reliable (Chronbach's α values ranged from .76 to .93) factors were identified through a principal components analysis with varimax rotation and included an 11-item Social Climate Stresses subscale that accounted for 33% of the variance, a 7-item Interracial Stresses subscale that accounted for 6% of the variance, a 5-item subscale that assessed students concerns about actual or perceived experiences with Racism and Discrimination and accounted for 5% of the variance, a 4-item Within-group Stresses subscale that accounted for 4% of the variance, and a 6-item Achievement Stresses scale that accounted for 3% of the variance. Rodriguez and her colleagues (2003) used a shortened version of this measure and found the subscales to be reliable (Cronbach's α values ranged from .80 to .90) and the items were averaged to create an overall minority status stress score which had good internal consistency (Cronbach's α = .93).

For the purpose of this study, the items were rated on a 5-point scale ranging from 1 (does not apply) to 5 (extremely stressful). As previously indicated, this particular rating scale was implemented to ensure consistency of items across questionnaires. The words "race" and "ethnicity" on the original questionnaire were replaced with "Mexican American" to ensure consistency and avoid confusion among the participants. The instructions indicated that "Mexican American" refers to anyone of Mexican ancestry and

includes individuals who identify in other ways, including Mexican, Chicano/a, or Latino/a. In addition, the item "Relationships between males and females of my race (e.g. available dating partners)" was replaced by "Romantic relationships between Mexican American individuals" to account for same sex relationships. These modifications did not threaten the reliability of the measure. The items on the Social Climate Stresses subscale (Cronbach's α = .94), the Interracial Stresses subscale (Cronbach's α = .88), the Racism and Discrimination Stresses subscale (Cronbach's α = .92), the Within-Group Stresses subscale (Cronbach's α = .85), and the Achievement Stresses subscale (Cronbach's α = .88) demonstrated good reliability. All items were summed to generate an overall minority status stress score which had good reliability (Chronbach's α = .96).

Acculturation

The Acculturation Rating Scale for Mexican Americans-II (ARSMA-II; Cuéllar, Arnold, & Maldonado, 1995) is a "multidimensional, multifactoral, and orthogonal" measure of acculturation that independently measures an individual's orientation toward Mexican culture and Anglo culture (p. 295, see Appendix M). The Mexican Orientation Subscale (MOS) comprised 18 items (Chronbach's α = .83); and the Anglo Orientation Subscale (AOS) comprised 30 items (Chronbach's α = .88). The ARSMA-II is a revised version of the ARSMA and the former has demonstrated a high Pearson correlation coefficient with the original ARSMA (r = .89). The original ARMSA measured acculturation along a single continuum, also known as a linear model, and an individual's orientation to Mexican and Anglo culture were not measured independently. Therefore the ARSMA is based on the invalid assumption that individuals must experience a reduction in one culture in order to acculturate to another culture. The ARMSA-II was created to address the aforementioned limitation and allows individuals to obtain a score

on the AOS and the MOS. The ARSMA-II was normed on a sample of 379 Mexican, Mexican American, and White American undergraduate students representing five generations from first to fifth. Good internal reliability was demonstrated for the AOS subscale (Chronbach's $\alpha = .83$) and the MOS scale (Chronbach's $\alpha = .88$). The ARSMA-II generates a variety of acculturative subtypes based on empirical cutting scores and normal curve distribution statistics (Cuellar et al., 1995).

For the purpose of this study, the item "I like to identify as an Anglo American" was extracted from the AOS scale. This change was implemented after the pilot study results suggested that several participants were unfamiliar with the term "Anglo." During the focus group, the participants indicated that freshmen and sophomores may not recognize the term because it is rarely used. This modification did not threaten the reliability of the measure. The AOS subscale of the measure evidenced good internal reliability (Chronbach's $\alpha = .77$). The MOS subscale also exhibited good internal reliability (Chronbach's $\alpha = .92$). The items on the AOS and MOS subscales were averaged and generated two different mean scores. The MOS mean score was subtracted from the AOS mean score to create a linear acculturation score from very Mexican oriented to very White oriented.

Perceived Peer Support

The Perceived Social Support from Friends Scale (PSS; Procidano & Heller, 1983) assessed perceived sources of social support (see Appendix N). The PSS is a 20-item measure that assesses individuals' perceptions that their needs for support, information, and feedback are fulfilled by friends. The PSS was found to have good internal reliability (Cronbach's $\alpha = .88$) in a sample of 222 college students. The PSS was found to be significantly and inversely related to Langner symptoms scores, $r = .27$, $p < .01$. Rodriguez and colleagues (2003) changed the response format from yes, no, don't

know to a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). They found a strong internal reliability in their sample of Latino college students (Cronbach's α = .92). The Likert response format was implemented in this study to measure a continuum of perceived peer support scores. In the present sample, the items demonstrated a low internal reliability (Chronbach's α = .63). A low reliability may be explained by the select group of participants in the study.

Kopperman's Scale of Social Support

Kopperman's Scale of Social Support was designed for future research to gain a better understanding of the sources of support college students select in different contexts (see Appendix O). Research findings have suggested the importance of family and peers in the lives of Mexican-origin college students; however, it remains unclear the circumstances where family support and peer support are solicited (Rodriguez et al., 2003). This measure was developed to address this limitation and provide more information on the circumstances where individuals solicit different types of support. This measure demonstrated good reliability (Chronbach's α = .84).

College Adjustment

The Student Adaptation to College Questionnaire[3] (SACQ) was developed by Baker and Siryk (1984, 1986, 1989) to assess the quality of adjustment to university life. Though the word "adaptation" is used in the title of the measure, it is synonymous to the word "adjustment" which has been used throughout the study. The measure consists of 67-items and assumes the adjustment to college is multifaceted in that it requires adaptation to a variety of demands. The domains include academic, social, personal, and institutional adjustment. For the initial analyses only the full-scale or global college adjustment score was examined. The full-scale has demonstrated good internal consistency (with Chronbach's α values ranging from .92 to .95 for the full scale, and from .77 to .91 for the subscales). The full-scale's validity has been confirmed indicating significant correlations between the SACQ and other indicators of adjustment, including grade point average, involvement in university activities, and scores on measures of depression and anxiety (Baker & Siryk, 1989). In a sample of Latino college students, Chronbach's α was .95 for the global SACQ, .87 for the Academic subscale, .89 for the Social subscale, .82 for the Personal-Emotional subscale, and .86 for the Attachment subscale (Schneider & Ward, 2003). Items on the full scale generated good internal reliability in the present sample (Coefficient α = .94). Scores were derived by summing the items on the full-scale. Higher numbers were indicative of positive college adjustment while lower scores were suggestive poor college adjustment.

[3] This measure is not included in the appendix. Western Psychological Services (WPS) publishes the SACQ, a copyrighted test, and limits the inclusion of instruments to use of materials that are original to the dissertation author or that are otherwise unpublished and so might be thought difficult for subsequent readers to obtain. WPS policy in such matters is to not authorize reprinting of our tests, subtests, or scales in their entirety, unless there is a committee requirement or other research-based reason. If you need to pursue reprinting of the instrument in its entirety, please write again to WPS Rights and Permissions.

RESEARCH QUESTIONS AND HYPOTHESES

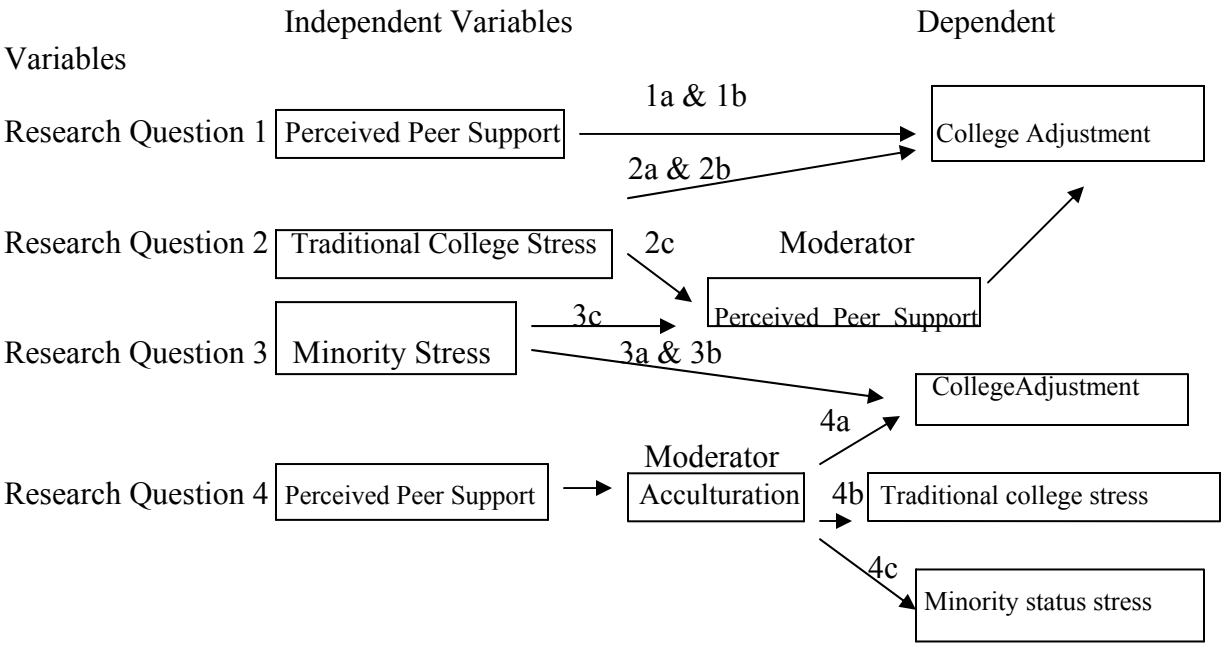
One major aim of this study was to determine whether perceived peer support influenced college adjustment in Mexican-origin students at a large predominantly White university. Minority students attending predominantly White universities frequently experience both minority status stress and traditional college stress. A second major aim of this study was to assess the extent that perceived peer support protected Mexican-origin students from both minority status stress and traditional college stress. The first two research aims were tested in accord with Vega and colleagues' (1985) model of Hispanic mental health. It was hypothesized that perceived peer support would directly influence college adjustment and moderate the relation between stress and college adjustment.

Lastly, the third major aim of the study was to highlight within group differences in the Mexican-origin population by examining whether acculturation status influenced the relation between perceived peer support and minority status stress and traditional college stress, and college adjustment. A similar model to Vega and colleagues' model was applied to this question such that acculturation was tested as a possible moderator variable. A summary of the research questions appears again in Table 1 below. A figure of the research questions is also provided (see Figure 1).

Table 4: *Summary of Research Questions*

Research Question	
1a	Is there a linear association between perceived peer support and overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
1b	Does perceived peer support contribute to overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
2a	Is there a negative correlation between traditional college stress and overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
2b	Does traditional college stress contribute to overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
2c	Does perceived peer support moderate the relation between traditional college stress and overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?
3a	Is there a negative linear association between minority status stress and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?
3b	Do perceived peer support and minority status stress contribute to overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?
3c	Does perceived peer support moderate the relation between minority status stress and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?
4a	Does acculturation status moderate the relation between perceived peer support and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?
4b	Do perceived peer support and acculturation status contribute to traditional college stress in a sample of Mexican-origin college students attending a predominantly White university?
4c	Does acculturation status moderate the relation between perceived peer support and traditional college stress in a sample of Mexican-origin students attending a predominantly White university?
4d	Do perceived peer support and acculturation status contribute to minority status stress in a sample of Mexican-origin students attending a predominantly White university?
4e	Does acculturation status moderate the relation between perceived peer support and minority status stress in a sample of Mexican-origin students attending a predominantly White university?

Figure 1: *Research Questions*



Perceived Peer Support and College Adjustment

Research question 1a: Is there a linear association between perceived peer support and overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?

Research question 1b: Does perceived peer support contribute to overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?

Research findings have demonstrated the importance of social support to Mexican-origin students, possibly reflecting their cultural values of cooperation, interdependence (Harrison et al., 1990), personalismo, and familismo. The literature has provided evidence for a relation between social support and college adjustment on a variety of campuses. Kenny and Stryker (1996) identified a relation between perceived peer support and college adjustment in Mexican-origin students attending a predominantly White university while Rodriguez and her colleagues (2003) identified a significant relation between perceived peer support and well-being in a sample of Latinos attending a predominantly Latino University. Therefore, the perception of peer support appears to enhance adjustment regardless of the ethnic composition of the student population.

Hypothesis 1a: There will be a positive linear association between perceived peer support and college adjustment, such that students who perceive more peer support will report experiencing greater levels of overall college adjustment and those who perceive less peer support will report experiencing lower levels of adjustment.

Hypothesis 1b: Perceived peer support will contribute significantly to college adjustment while controlling for socio-demographic factors including gender, year in college, acculturation status, generation level, and education level of parents.

Traditional College Stress, Perceived Peer Support, and College Adjustment

Research question 2a: Is there a negative correlation between traditional college stress and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?

Research question 2b: Does traditional college stress contribute to overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?

Research question 2c: Does perceived peer support moderate the relation between traditional college stress and overall college adjustment in a sample of Mexican-origin students attending a predominantly White university?

Traditional college stressors are shared by the majority of college students and include financial, personal, academic, and family concerns (Alvan et al., 1996). Peer support has been identified as an influential factor of college adjustment in Mexican American students (Gandara & Osugi, 1994; Young, 1992). Peer groups may be helpful for students to "make sense" of the college environment by facilitating the development of skills needed in college (Hurtado & Carter, 1997). A moderator variable has been defined by Baron and Kenny (1986) as a factor that influences the direction or strength of the relation between an independent variable and a dependent variable. Therefore, varied perceptions of peer support are expected to affect the relation between traditional college stress and college adjustment. Based on the literature, the following hypotheses were explored to determine the unique relation between traditional college stress and perceived peer support in a sample of Mexican-origin college students:

Hypothesis 2a: There will be a negative association between traditional college stress and college adjustment, such that students who perceive more traditional college

stress will experience lower levels of overall college adjustment while students who perceive fewer college stressors will experience better adjustment.

Hypothesis 2b: Traditional college stress will contribute significantly to college adjustment such that students who perceive more traditional college stress will experience lower levels of overall college adjustment while students who perceive less traditional college stress will experience better adjustment.

Hypothesis 2c: Perceived peer support will moderate the relation between traditional college stress and college adjustment, such that the relation between traditional college stress and college adjustment will be dependent upon perception of peer support.

Minority Status Stress, Perceived Peer Support, and College Adjustment

Research question 3a: Is there a negative linear association between minority status stress and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?

Research question 3b: Do perceived peer support and minority status stress contribute to overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?

Research question 3c: Does perceived peer support moderate the relation between minority status stress and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?

The literature has indicated Mexican-origin students frequently perceive the campus culture at predominantly White universities to be "alienating, isolating, hostile, and unsupportive" (Attinasi, 1989; Bennett & Okinaka, 1990; Gandara, 1995; Gonzalez, 2002, p.194, Hurtado, 1992, 1994; Hurtado et al., 1996; Olivas, 1986). Mexican-origin students' perceptions of a hostile campus environment may reflect stressors associated with their minority status, including prejudice and discrimination. Students are likely to

be adversely affected by their perceptions of prejudice and discrimination on campus which may negatively influence college adjustment (Nora & Cabrera, 1996). Research studies have indicated that minority students on predominantly White campuses who have available social support during times of need (Tracey & Sedlacek, 1985) have experienced academic success leading to increased retention (Kenny & Stryker, 1996). Given the importance of social support to Mexican-origin students attending a predominantly White university and the adverse effects minority status stress may have on students, the following hypotheses were explored:

Hypothesis 3a: There will be a negative association between minority status stress and overall college adjustment, such that students who perceive more minority status stress will experience lower levels of college adjustment while students who perceive less minority status stress will experience better adjustment.

Hypothesis 3b: Perceived peer support and minority status stress will contribute to overall college adjustment, such that students who perceive more minority status stress will experience lower levels of adjustment while students who perceive less minority status stress will experience better adjustment.

Hypothesis 3c: Perceived peer support will moderate the relation between minority status stress and college adjustment, such that the relation between minority status stress and college adjustment are dependent upon perception of peer support.

Acculturation

Researchers have highlighted the importance of examining Latino groups independently to account for within group differences (Umaña-Taylor & Fine, 2001). Baron and Constantine (1997) have discussed the importance of accounting for acculturation in the examination of social support. Current research findings on the relation between distress, adjustment, and acculturation have been equivocal. Some

research has indicated that lower levels of acculturation are related to higher levels of perceived distress (Cuellar, 2000; Quintana et al., 1991) while other studies have found that lower levels of acculturation have facilitated adjustment in Latino individuals (Buriel, 1984; Cordova, 1970; Kimball, 1968; Negy & Woods, 1992; Vigil & Long, 1981). My study has helped to clarify the conflicting evidence by addressing the following research questions:

Research question 4a: Does acculturation status moderate the relation between perceived peer support and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?

Research question 4b: Do perceived peer support and acculturation status contribute significantly to traditional college stress in a sample of Mexican-origin students attending a predominantly White university?

Research question 4c: Does acculturation status moderate the relation between perceived peer support and traditional college stress in Mexican-origin students attending a predominantly White university?

Research questions 4d: Do perceived peer support and acculturation status contribute significantly to minority status stress in a sample of Mexican-origin students attending a predominantly White university?

Research question 4e: Does acculturation status moderate the relation between perceived peer support and minority status stress in Mexican-origin students attending a predominantly White university?

CHAPTER FOUR

Results

The present study examined perceived peer support in a sample of Mexican-origin freshmen and sophomores attending a predominantly White university. As previously indicated, I investigated four questions: (1) Does perceived peer support predict college adjustment in students of Mexican-origin? (2) Does perceived peer support protect Mexican-origin students from minority status stress? (3) Does perceived peer support protect Mexican-origin students from traditional college stress? (4) Does acculturation status predict the relation between perceived peer support and traditional college stress, minority status stress, and college adjustment?

This chapter presents the results of the current study, which examined perceived peer support and college adjustment in students of Mexican-origin. The results underscore the importance of perceived peer support in the context of college adjustment and traditional college stress. In addition, increased levels of traditional college stress and minority status stress negatively predicted lower levels of college adjustment while acculturation status negatively predicted minority status stress. These findings will be explained in further detail throughout the chapter.

PRELIMINARY ANALYSES

Several analyses were conducted prior to testing the hypotheses. A summary of variable means, standard deviations, and correlations are listed in Table 5. The most interesting correlations indicated that higher levels of perceived peer support were associated with higher college adjustment scores while higher levels of minority status stress and traditional college stress corresponded with lower college adjustment scores.

Higher levels of traditional college stress were unexpectedly associated with higher levels of perceived peer support.

Table 5: *Means, Standard Deviations, and Correlations for Predictor and Outcome Variables*

Variable	Range	*M*	*SD*	1	2	3	4	5	6	7	8
Predictor Variables											
1. Mother Education	2-17	11.72	3.07	-	.66**	.41**	.35**	.01	-.18*	-.07	.10
2. Father Education	0-17	11.74	3.45		-----	.38**	.33**	.02	-.16	-.01	-.02
3. Generation Level	1-5	3.03	1.25			-----	.46**	.00	-.10	-.09	.05
4. Acculturation Status	2-5	3.33	0.89				-----	-.12	-.38**	-.10	-.02
5. Perceived Peer Support	42-88	67.06	7.36					-----	.17	.22*	.18*
6. Minority Status Stressors	33-163	76.86	29.23						-----	.51**	-.29**
7. Traditional College Stress	29-90	52.89	12.25							-----	-.51**
Outcome Variable											
8. College Adjustment	244-531	392.43	68.44								-----

Note. * $p < .05$, ** $p < .01$

Colinearity diagnostics were conducted to determine whether there was a strong correlation between two or more predictors (Field, 2005). The presence of strong correlations among two or more variables may jeopardize the validity of a regression model by making it difficult to determine the unique contributions of a variable, limiting the size of R, and the presence of unstable regression coefficients (Field). Field has suggested assessing multicolinearity with one of two colinearity diagnostics: the variance inflation factor (VIF) or the tolerance statistic. It has been recommended that a VIF value be less than 10 and the tolerance statistic, which is the reciprocal of the VIF, be greater than .2. Both the VIF and the tolerance statistic were calculated for the current sample and multicolinearity was not identified among the variables.

Next, univariate, bivariate, and multivariate tests of normality were assessed by examining the skewness values of each variable. The skewness coefficient for each variable was converted to a z-score by subtracting the mean of the distribution from an item and dividing the result by the standard error of skewness. The standardized value was then compared to values one would expect by chance alone, or the typical values in a normal distribution (Field, 2000). The further the value from 0, the more skewed the variable. For small samples, such as the current sample, Field has recommended comparing this value to values above 2.58, or two standard deviations above the mean. For mother's education, the z-score of skewness was -6.90 and for father's education the z-score of skewness was -6.71. Both of these values were moderately negatively skewed meaning that there was an uneven distribution of scores to the left of the mean, or to the left of 0 in a standardized distribution.

Mother's education and father's education were transformed into third order polynomials to correct for distributional problems. Field (2000) has recommended transforming the data as oppose to removing cases or changing cases, other methods of correcting distributional errors, because in a transformation all the scores are modified which does not affect the relation between different values. The skewness coefficients for mother's and father's education were cubed and resulted in normal distributions. The z-score of skewness was transformed to 1.62 for father's education and -1.42 for mother's education both less than the absolute value of 2.58.

Finally, the interaction terms and the variables that comprised the interactions were transformed to centered variables. These variables included perceived peer support, traditional college stress, and perceived peer support x traditional college stress in hypothesis 2c; perceived peer support, minority status stress, and perceived peer support

x minority status stress in hypothesis 3c; perceived peer support, acculturation status, and perceived peer support x acculturation status in research question four.

Centering the variables entailed subtracting the mean from each datum of a predictor (the mean became the point of reference). Centering variables differs from standardizing variables because centered variables are centered around the mean while standardized variables have a mean of zero. Dallal (2003) has recommended centering the predictors of an interaction term because the coefficients of a centered model are easier to interpret. Garson (2006) has also recommended using centered variables because they may reduce multicolinearity that existing among predictors.

HIERARCHICAL LINEAR REGRESSION ANALYSES

In this section, I report the results for the seven hierarchical linear regressions that were conducted. The hierarchical regression predictors were selected based on past literature of the variables and by the principal investigator (Field, 2005). For this study, an a priori alpha level of .05 was used as the criterion for significance. The R-square statistic was reported since there were at least 10 participants per a variable.

Cohen and Cohen (1983) have recommended evaluating variables in steps. If an entire step significantly increases the proportion of variance accounted for in the dependent variable, then the contribution of individual variables in that step should be examined. Therefore, variables were entered in sets and in five, six, or seven steps depending on the research question, with the socio-demographic variables entered first as control variables.

The first four steps, or the socio-demographic variables, were the same in every regression equation. The order of the socio-demographic variables was determined by Bronfenbrenner's EST, with the first steps representing the innermost system. Gender and year in college were entered in the first step because they both reflected

characteristics of the self. Mother's and father's education level were entered in the Step 2 because they represented parental characteristics, and thus resided in the microsystem. Generation level was entered in Step 3 because it represented family ancestry. Acculturation status was entered in the fourth step because it represented a cultural process individual's experience. The predictor variables of interest were entered after the socio-demographic variables, with the interaction terms being entered second to the individual variables.

Perceived Peer Support and College Adjustment

Hypothesis 1a: A positive linear association between perceived peer support and overall college adjustment was proposed, such that students who perceived more peer support would report experiencing greater levels of overall college adjustment and those who perceived less peer support would report experiencing lower levels of adjustment.

Pearson correlational analyses were conducted on scores of the Perceived Social Support from Friends Scale and the Student Adaptation to College Questionnaire to determine whether there was a relation between perceived peer support and college adjustment. A significant positive correlation was identified between perceived peer support and college adjustment indicating that higher levels of perceived peer support were related to higher levels of college adjustment ($r = .18$, $p < .05$).

Hypothesis 1b: Perceived peer support was expected to contribute significantly to overall college adjustment while controlling for socio-demographic factors.

A five-step forced entry hierarchical regression was conducted to determine whether perceived peer support contributed significantly to overall college adjustment ($R^2 = .06$, $p = .07$; see Table 6). As seen in Table 6, Steps 1, 2, 3, 4, and 5 did not demonstrate a significant amount of variation in overall college adjustment. Therefore, the hypothesis that higher levels of perceived peer support would be associated with

higher levels of college adjustment when controlling for various socio-demographic factors was not supported. A significant positive correlation between perceived peer support and college adjustment and an insignificant finding when various socio-demographic variables, perceived peer support, and college adjustment were entered in a regression model suggests that the socio-demographic variables explain some of the variation previously accounted for by perceived peer support.

Table 6: *Summary of Hierarchical Regression Analysis for Variables Predicting College Adjustment (N = 115)*

Step	Predictor Variable	*B*	*SEB*	β	R^2	ΔR^2	ΔF
1	Gender	-7.02	14.73	-.04	.00	.00	.07
	Year in College	-0.38	13.42	-.00			
2	Mother Education	0.01	.01	-.16	.02	.02	1.06
	Father Education	-0.01	.01	-.12			
3	Generation	3.28	6.08	.06	.02	.00	.14
4	Acculturation Status	-4.13	8.67	-.05	.03	.00	.47
5	Perceived Peer Support	1.69	.91	.18	.06	.03	3.42

Note: $R^2 = .06$, $p = .07$

Traditional College Stress, Perceived Peer Support, and College Adjustment

Hypothesis 2a: A negative linear association between traditional college stress and overall college adjustment was proposed, such that students who perceived more traditional college stress would experience lower levels of college adjustment while students who perceived less traditional college stress would experience better college adjustment.

Pearson correlational analyses were conducted on scores of the College Stress Scale and the Student Adaptation to College Questionnaire to determine whether there was a relation between traditional college stress and college adjustment. A significant negative correlation was identified between traditional college stress and college

adjustment indicating that lower levels of traditional college stress corresponded to higher levels of college adjustment (r = -.51, p < .01).

Hypothesis 2b: Traditional college stress was expected to contribute significantly to overall college adjustment while controlling for perceived peer support and socio-demographic factors.

A six-step forced entry hierarchical regression was conducted to determine whether traditional college stress contributed significantly to overall college adjustment (R^2 = .37, p < .001; see Table 7). As seen in Table 7, the variables in Steps 1, 2, 3, 4, and 5 did not demonstrate a significant amount of variation in college adjustment. When traditional college stress was added in Step 6, however, this variable demonstrated a significant increase in the R-square statistic (R^2 = .37).

Hypothesis 2c: Perceived peer support was expected to moderate the relation between traditional college stress and overall college adjustment, such that the relation between traditional college stress and college adjustment would become weaker among students with a greater perception of peer support.

A seven-step forced entry hierarchical regression was conducted to determine whether perceived peer support buffered Mexican-origin college students from the effects of traditional college stress (R^2 = .38, p = .57; see Table 7). Similarly to Hypothesis 2b, the variables in Steps 1, 2, 3, 4, and 5 did not demonstrate a significant amount of variation in overall college adjustment. As previously indicated, traditional college stress demonstrated a significant increase in the R-square statistic (R^2 = .37). The perceived peer support x traditional college stress interaction was not significant in Step 7. Therefore, a final, trimmed, model that only included traditional college stress was examined.

Table 7: *Hierarchical Regression Analysis of College Adjustment with Socio-Demographic Variables, Traditional College Stress, and Perceived Peer Support as Predictors* (N = 115)

Step	Predictor Variables	*B*	*SEB*	*β*	R^2	ΔR^2	ΔF
1	Gender			.04	.00	.00	.07
	Year in College	2.24	12.20	.04			
		8.50	11.10				
2	Mother Education	0.01	14.20	.01	.02	.02	1.06
	Father Education	-0.01	14.28	.01			
3	Generation	0.44	19.13	5.03	.02	.00	.14
4	Acculturation Status	-3.73	5.99	7.14	.03	.00	.47
5	Perceived Peer support	2.78	16.90	.76	.06	.03	3.42
6	Traditional College Stress	-3.31	8.40	.45	.37	.32	53.83***
7	Perceived Peer Support x Traditional College Stress	-0.03	23.73	.06	.38	.00	.32

Note. R^2 = .38, ***p < .001.

The final model accounted for 26% of the variance [R^2 = .26; F(1,114) = 39.37, p < .001]. Traditional college stress was a significant negative predictor of overall college adjustment (B = -2.83, SEB = .45, β = -.51, p < .001). This effect indicated that when controlling for socio-demographic factors, Mexican-origin students who reported higher levels of traditional college stress were more likely to report lower levels of college adjustment than Mexican-origin students who reported lower levels of traditional college stress.

Minority Status Stress, Perceived Peer Support, and College Adjustment

Hypothesis 3a: A negative association between minority status stress and overall college adjustment was proposed, such that as a whole, students who perceived higher

levels of minority status stress would experience lower levels of college adjustment while students who perceived lower levels of minority status stress would experience better adjustment.

Pearson correlation analyses were conducted on scores of the Minority Status Stress Scale and the Student Adaptation to College Questionnaire to determine whether there was a relation between minority status stress and college adjustment. A significant negative correlation was identified between minority status stress and college adjustment indicating that the perception of less minority status stress corresponded to higher levels of college adjustment (r = -.29, p <.01).

Hypothesis 3b: Perceived peer support and minority status stress were expected to contribute significantly to overall college adjustment while controlling for socio-demographic factors.

A six-step forced entry hierarchical regression was conducted to determine whether perceived peer support and minority status stress contributed significantly to overall college adjustment (R^2 = .18, p <.001; see Table 8). As seen in Table 8, the variables in Steps 1, 2, 3, 4, and 5 did not demonstrate a significant amount of variation in overall college adjustment. When minority status stress was added in Step 6, however, this variable demonstrated a significant increase in the R-square statistic (R^2 = .18).

Hypothesis 3c: Perceived peer support was expected to moderate the relation between minority status stress and overall college adjustment, such that the relation between minority status stress and college adjustment would become weaker among students with a higher perception of peer support.

A seven-step forced entry hierarchical regression was conducted to determine whether perceived peer support buffered Mexican-origin students from the effects of minority status stress (R^2 = .18, p = .92; see Table 8). The variables in Steps 1, 2, 3, 4,

and 5 did not demonstrate a significant amount of variation in college adjustment. When minority status stress was added in Step 6, however, this variable demonstrated a significant increase in the R-square statistic (R^2 = .12). The perceived peer support x traditional college stress interaction term entered in Step 7 was not significant. Therefore, a final, trimmed model that only included minority status stress was examined.

Table 8: *Hierarchical Regression Analysis of College Adjustment With Socio-Demographic Variables, Perceived Peer Support, Minority Status Stress, and Perceived Peer Support x Minority Status Stress as Predictors* (N = 115)

Step	Predictor Variable	*B*	*SEB*	*β*	R^2	ΔR^2	ΔF
1	Gender	-8.65	14.07	-.06	.00	.00	.07
	Year in College	-1.13	12.65	-.01			
2	Mother Education	0.01	0.01	.17	.02	.02	1.06
	Father Education	-0.01	0.01	-.17			
3	Generation	5.49	5.82	.10	.02	.00	.14
4	Acculturation	-13.89	8.61	-.18	.03	.00	.47
5	Perceived Peer Support	2.02	0.86	.22	.06	.03	3.42
6	Minority Status Stress	-0.89	0.23	-.37	.18	.12	15.51***
7	Perceived Peer Support x Minority Status Stress	0.00	0.03	.01	.18	.00	.01

Note. R^2 = 0.18 ***p < .001.

The final model accounted for 8% of variance [R^2 = .08; F(1, 114) = 8.51, p < .01]. The presence of minority status stress was a significant negative predictor of overall college adjustment [B = -.69, SEB = .21, β = -.29, p < .01]. This effect indicated that students of Mexican-origin who reported lower levels of minority status stress were more

likely to report higher levels of college adjustment than Mexican-origin students who reported higher levels of minority status stress.

Acculturation

Research question 4a: Does acculturation status moderate the relation between perceived peer support and overall college adjustment in a sample of Mexican-origin college students attending a predominantly White university?

A six-step forced entry hierarchical regression was conducted to determine whether acculturation status moderated the relation between perceived peer support and overall college adjustment (R^2 = .07, p = .20; see Table 9). As seen in Table 9, neither the socio-demographic variables, nor the predictor variable, nor the interaction term demonstrated a significant increase in the R- square statistic. This finding suggests that acculturation status does not moderate the relation between perceived peer support and college adjustment.

Table 9: *Hierarchical Regression Analysis of College Adjustment With Socio-Demographic Variables, Perceived Peer Support, Acculturation Status, and Perceived Peer Support x Acculturation Status as Predictors* (*N* = 115)

Step	Predictor Variable	*B*	*SEB*	β	ΔR^2	ΔF
1	Gender	-7.11	14.69	- .05	.00	.07
	Year in College	-2.01	13.43	-.02		
2	Mother Education	0.01	0.01	.14	.02	1.06
	Father Education	-0.01	0.01	-.11		
3	Generation	3.71	6.07	.07	.00	.14
4	Perceived Peer Support	1.71	0.91	.18	.03	3.70
5	Acculturation Status	2.02	8.64	-.05	.00	.23
6	Perceived Peer Support x Acculturation Status	0.00	0.94	.12	.02	1.69

Note. R^2 = .07

Research question 4b: Perceived peer support and acculturation status were expected to contribute significantly to traditional college stress while controlling for socio-demographic factors.

A five-step forced entry hierarchical regression was conducted to determine whether perceived peer support and acculturation status contributed significantly to traditional college stress (R^2 = .08, p = .94; see Table 10). As seen in Table 10, the variables in Steps 1, 2, and 3 did not demonstrate a significant increase in the R-square statistic. When perceived peer support was added in Step 4, however, this variable demonstrated a significant increase in the R-square statistic (R^2 = .09, p < .05). The acculturation status variable entered in Step 5 was not significant.

Research question 4c: Does acculturation status moderate the relation between perceived peer support and traditional college stress in a sample of Mexican-origin students attending a predominantly White university?

A six-step forced entry hierarchical regression was conducted to determine whether acculturation status moderated the relation between perceived peer support and traditional college stress (R^2 = .09, p = .34; see Table 10). Similarly to hypothesis 4b, the variables in Steps 1, 2, and 3 did not demonstrate a significant increase in the R-square statistic. As indicated earlier, the perceived peer support variable added in Step 4 demonstrated a significant increase in the R-square statistic (R^2 = .09, p < .05). Neither the acculturation status variable entered in Step 5 nor the perceived peer support x traditional college stress interaction term entered in Step 6 was significant. Therefore, a final, trimmed, model that only included perceived peer support was examined.

Table 10: *Hierarchical Regression Analysis of Traditional College Stress With Socio-Demographic Variables, Perceived Peer Support, Acculturation Status, and Perceived Peer Support x Acculturation Status as Predictors* ($N = 128$)

Step	Predictor Variable	*B*	*SEB*	β	R^2	ΔR^2	ΔF
1	Gender	3.01	2.43	.12	.04	.04	2.26
	Year in College	2.99	2.23	.12			
2	Mother Education	0.00	0.01	.03	.04	.00	.03
	Father Education	0.00	0.01	.01			
3	Generation	-1.08	1.00	-.11	.05	.01	1.30
4	Perceived Peer Support	0.33	0.15	.20	.08	.04	4.91*
5	Acculturation Status	-0.11	1.40	-.01	.08	.00	.01
6	Perceived Peer Support X Acculturation Status	-0.15	0.16	-.09	.09	.01	.93

Note. $R^2 = .09$, * $p < .05$

In the final model, perceived peer support accounted for 5% of the variance in traditional college stress [$R^2 = .05$; $F(1, 127) = 6.61$, $p < .01$]. Perceived peer support was a significant predictor of traditional college stress ($B = .37$, $SEB = .14$, $\beta = .22$, $p < .01$). This effect indicated that Mexican-origin students who reported higher levels of perceived peer support were more likely to report higher levels of traditional college stress than Mexican-origin students who reported lower levels of perceived peer support.

Research question 4d: Perceived peer support and acculturation status were expected to contribute significantly to minority status stress while controlling for the socio-demographic factors.

A five-step forced entry hierarchical regression was conducted to determine whether perceived peer support and acculturation status contributed significantly to minority status stress ($R^2 = .17$, $p < .001$; see Table 11). As seen in Table 11, the

variables in Steps 1, 2, 3, and 4 did not demonstrate a significant increase in the R-square statistic. When acculturation status was added in Step 5, however, this variable demonstrated a significant increase in the R-square statistic ($R^2 = .17$, $p < .001$).

Research question 4e: Does acculturation status moderate the relation between perceived peer support and minority status stress in a sample of Mexican-origin students attending a predominantly White university?

A six-step forced entry hierarchical regression was conducted to determine whether acculturation status moderated the relation between perceived peer support and minority status stress ($R^2 = .20$, $p = .08$; see Table 12). Similar to hypothesis 4d, the variables in Steps 1, 2, 3, and 4 did not demonstrate a significant increase in the R-square statistic while the acculturation status variable entered in Step 5 did demonstrate a significant increase in the R-square statistic ($R^2 = .17$, $p < .001$). The perceived peer support x acculturation status interaction term entered in Step 6 was not significant. Therefore, a final, trimmed model that only included acculturation status was examined.

Table 11: *Hierarchical Regression Analysis of Minority Status Stress With Socio-Demographic Variables, Perceived Peer Support, Acculturation Status, and Perceived Peer Support x Acculturation Status as Predictors* (*N* = 128)

Step	Predictor Variable	*B*	*SEB*	β	R^2	ΔR^2	ΔF
1	Gender	-1.91	5.53	-.03	.00	.00	.03
	Year in College	-3.19	5.06	-.05			
2	Mother Education	0.00	0.00	-.03	.02	.02	1.50
	Father Education	0.00	0.00	-.04			
3	Generation	2.64	2.27	.11	.03	.00	.21
4	Perceived Peer Support	0.50	0.34	.12	.06	.03	3.68
5	Acculturation Status	-13.36	3.19	-.41	.17	.12	17.20***
6	Perceived Peer Support X Acculturation Status	-0.63	0.36	.15	.20	.02	3.18

Note. $R^2 = .20$, *** $p < .001$

In the final model, acculturation status accounted for 15% of the variance in minority status stress [$R^2 = .15$; $F(1, 129) = 22.33$, $p < .001$]. Acculturation status was a significant negative predictor of minority status stress ($B = -12.66$, $SEB = 2.68$, $\beta = -.38$, $p < .001$). This effect indicated that less acculturated Mexican-origin students were more likely to perceive more minority status stress than highly acculturated Mexican-origin students.

SECONDARY ANALYSES

Secondary analyses were conducted on select hypotheses including Hypotheses 1, 2, and 3, and research questions 4B and 4D. The purpose of conducting further analyses was to gain an increased understanding of the relation between predictor variables that contributed significantly to the outcome variable. Secondary analyses were not conducted

on any hypotheses or research questions that were not statistically significant. I made this decision in an effort to keep my readers focused on my key research findings and their implications. The secondary analyses are labeled accordingly.

Hypothesis 1: Perceived Peer Support and College Adjustment

Though marginally significant results with p values of .07 to .10 are not typically reported, the relatively small sample size of this study precluded identification of small effect sizes with an alpha criterion of .05. To explore possible relations for further investigation with a larger sample, I therefore examined marginally significant results in these secondary analyses.

The first hypothesis that perceived peer support would contribute significantly to overall college adjustment was marginally significant [$\Delta R^2 = .03$; $\Delta F\ (1, 107) = 3.42$, $p = .07$]. This finding prompted me to run additional analyses to determine if perceived peer support was predictive of one of the four domains of college adjustment. These domains included: academic adjustment, social adjustment, personal emotional adjustment, and attachment.

Baker and Siryk (1989, 1999) have recommended that in addition to measuring the global scale of college adjustment, the four facets of college adjustment be measured as well since the basic premise of the measure has underscored that college adjustment is a multifaceted construct. They explained that when the full scale is used without using the four subscales, rich information about an individual's adjustment may be sacrificed. Therefore, I suspected that examining these subscales may provide additional information about Mexican-origin students' perception of peer support and college adjustment. The relation between perceived peer support and the subscales of college adjustment were assessed by conducting four forced entry hierarchical regressions.

Academic adjustment

The first model examined whether perceived peer support contributed significantly to academic adjustment. The academic adjustment subscale measures a student's ability to adapt to the multiple educational demands at the university (Baker & Siryk, 1999). A five-step forced entry hierarchical regression was examined (R^2 = .03, p = .30; see Table 12). Neither the socio-demographic variables nor perceived peer support demonstrated a significant increase in the R-square statistic. Therefore, Mexican-origin students' report of peer support was not predictive of academic adjustment.

Table 12: *Summary of Hierarchical Regression Analysis with Academic Adjustment as the Outcome Variable* (N = 114)

Step	Predictor Variable	*B*	*SEB*	B	R^2	ΔR^2	ΔF
1	Gender	-0.62	5.58	-.01	.00	.01	.30
	Year in College	-2.52	5.04	-.05			
2	Mother Education	0.77	1.10	-.09	.01	.01	.51
	Father Education	-0.48	.94	-.07			
3	Generation	1.61	.34	.08	.02	.01	.53
4	Acculturation Status	0.02	3.27	.00	.02	.00	.01
5	Perceived Peer Support	0.36	.34	.10	.03	.01	1.07

Note: R^2 = .03, p = .30

Social adjustment

Next, a five-step forced entry hierarchical regression was conducted to determine whether perceived peer support contributed significantly to social adjustment (R^2 = .14, p < .001; see Table 13). Social adjustment refers to a student's ability to cope with the social demands of college. When perceived peer support was added in Step 5, this variable demonstrated a significant increase in the R-square statistic (R^2 = .14, p < .001). This finding indicated Mexican-origin students' who reported higher levels of perceived peer support also reported higher levels of social adjustment. A final, trimmed, model that only included perceived peer support was examined.

Table 13: *Summary of Hierarchical Regression Analysis with Social Adjustment as the Outcome Variable* (N = 114)

Step	Predictor Variable	*B*	*SEB*	β	R^2	ΔR^2	ΔF
1	Gender	-3.26	5.15	-.06	.01	.01	.47
	Year in College	4.87	4.65	.10			
2	Mother Education	1.41	1.01	.17	.02	.01	.71
	Father Education	-.55	.87	-.08			
3	Generation	-.57	2.16	-.03	.03	.01	.57
4	Acculturation Status	-3.53	3.01	-.12	.05	.02	2.27
5	Perceived Peer Support	1.07	.32	.32	.14	.09	11.49

Note: $R^2 = .14$, $p < .001$

The final model accounted for 10% of the variance [$R^2 = .10$; $F(1,114) = 12.60$, $p < .001$]. Perceived peer support was a significant predictor of social adjustment ($B = 1.07$, $SEB = .30$, $\beta = .32$, $p < .001$) This effect indicated that Mexican-origin students who reported higher levels of perceived peer support were more likely to report higher levels of social adjustment at college.

Personal emotional adjustment

The next five-step forced entry hierarchical regression model assessed whether perceived peer support contributed significantly to personal emotional adjustment ($R^2 = .04$ $p = 1.0$; see Table 14). Personal emotional adjustment measures the degree to which an individual is experiencing psychological or physical distress as a consequence of transitioning to college. This finding indicated Mexican-origin students' perception of peer support was not a predictor of personal emotional adjustment.

Table 14: *Summary of Hierarchical Regression Analysis with Personal Emotional Adjustment as the Outcome Variable* ($N = 114$)

Step	Predictor Variable	*B*	*SEB*	β	R^2	ΔR^2	ΔF
1	Gender	-2.49	4.79	-.05	.01	.01	.79
	Year in College	-3.25	4.33	.07			
2	Mother Education	.93	.94	.13	.03	.02	1.07
	Father Education	-1.20	.81	-.19			
3	Generation	1.91	2.01	.11	.04	.01	1.09
4	Acculturation Status	.10	2.81	.00	.04	.00	.00
5	Perceived Peer Support	.00	.30	.00	.04	.00	.00

Note: $R^2 = .04$, $p = 1.0$

Attachment

The final five-step forced entry hierarchical regression was conducted to determine whether perceived peer support contributed significantly to attachment ($R^2 = .07$, $p < .05$; see Table 15). Attachment refers to the student's commitment to the goals of the university and to the university itself. When perceived peer support was entered in Step 5, this variable demonstrated a significant increase in the R-square statistic ($R^2 = .07$, $p < .05$). This finding indicated Mexican-origin students' who reported higher levels of perceived peer support also reported higher levels of attachment to the institution. A final, trimmed, model that only included perceived peer support was examined.

Table 15: *Summary of Hierarchical Regression Analysis with Attachment as the Outcome Variable* ($N = 114$)

Step	Predictor Variable	B	SEB	B	R^2	ΔR^2	ΔF
1	Gender	.41	2.16	.02	.00	.00	.07
	Year in College	.67	1.95	.03			
2	Mother Education	.68	.43	.21	.03	.03	1.39
	Father Education	-.42	.36	-.15			
3	Generation	.06	.91	.01	.03	.00	.02
4	Acculturation Status	-.55	1.27	-.05	.03	.00	.45
5	Perceived Peer Support	.28	.13	.20	.07	.04	4.33

Note: $R^2 = .07$, $p < .05$

The final model accounted for 5% of the variance [$R^2 = .05$; $F(1,114) = 5.49$, $p < .05$]. Perceived peer support was a significant predictor of attachment ($B = .29$, $SEB = .13$, $\beta = .21$, $p < .05$). This effect indicated that Mexican-origin students who reported higher levels of perceived peer support were more likely to report higher levels of attachment to the university.

Hypothesis 2: Traditional College Stress, Perceived Peer Support, and College Adjustment

Because traditional college stress was a global stress measure that included three subscales (i.e., academic stress, social stress, and financial stress), I further explored the unique contributions of each of these subscales as predictors of college adjustment. The finding that traditional college stress predicted college adjustment (hypothesis 2) prompted me to run additional analyses to determine the specific types of college stress that predicted college adjustment. This was assessed by entering the academic stress, social stress, and financial stress subscales in a multiple regression equation.

The results indicated that the three subscales combined explained 28% of the variance [R^2 = .29; F(3, 12) = 15.58, p < .001]. Academic stress was the strongest predictor of negative college adjustment (B = -4.59, SEB = 1.25, β = -.35, p < .001) and social stress was the next strongest predictor (B = -4.26, SEB = 1.40, β = -.30, p < .01). Financial stress was not a significant predictor of negative college adjustment (B = .51, SEB = 1.47, β = .03, p = .73). These findings have suggested that higher levels of academic stress and social stress correspond to lower levels of college adjustment while financial stress bears no significant relation to college adjustment.

Hypothesis 3: Minority Status Stress, Perceived Peer Support, and College Adjustment

Since minority status stress was also a global measure of stress that included five subscales (i.e., social climate stress, interracial stress, racism and discrimination stress, within-group stress, and achievement stress), I further explored the unique contributions of each of these subscales as predictors of college adjustment. The finding that minority status stress predicted college adjustment (hypothesis 3b) prompted me to run additional analyses to determine the specific types of minority status stress predictive of college adjustment. This was assessed by entering the five minority stress subscales in a multiple regression equation.

The multiple regression equation included the five different types of minority status stress. The results indicated that the five subscales accounted for 22% of the variance [R^2 = .22; F(5, 110) = 6.07, p < .001]. Achievement stress was the strongest predictor of negative college adjustment (B = -6.27, SEB = 1.51, β = -.49, p < .001) and interracial stress was the next strongest predictor of negative college adjustment (B = -4.15, SEB = 1.88, β = -.36, p < .05). Social climate stress was a significant predictor of college adjustment (B = 2.59, SEB = 1.12, β = .39, p < .05) while racism and

discrimination stress and within group stress did not make a significant contribution to college adjustment. These findings have suggested that students who perceive greater levels of achievement stress and interracial stress are more likely to experience lower levels of adjustment. Interestingly, students who perceived higher levels of social climate stress were more likely to experience better college adjustment than those individuals who did not perceive this type of stress.

Research Question 4: Acculturation

The finding that perceived peer support was a predictor of traditional college stress (hypothesis 4b) prompted me to run additional analyses to determine the contribution of perceived peer support to the three subscales of traditional college stress(i.e., academic stress, social stress, and financial stress). This was assessed by conducting three simple regressions where perceived peer support was the predictor variable and academic stress, social stress, and financial stress were the outcome variables.

In the first regression, perceived peer support was not a predictor of academic stress (R^2 = .02; F(1, 27) = 2.49, p =.12; see Table 16). The second regression model indicated that perceived peer support was a significant predictor of social stress [R^2 = .03; F(1,127) = 4.12, p <.05]. The third regression model also indicated that perceived peer support was a significant predictor of financial stress [R^2 = .04; F(1, 127) = 5.39, p < .05]. These findings have suggested that students who perceive higher levels of peer support may also be experiencing more social and financial stress than students who perceive lower levels of peer support.

Table 16: *Summary of Regression Analysis with Perceived Peer Support as the Predictor Variable of the Three Facets of Traditional College Stress* (*N* = 128)

Model	Outcome Variable	*B*	*SEB*	β	R^2
1	Academic Stress	.10	.06	.14	.02
2	Social Stress	.12	.06	.18	.03*
3	Financial Stress	.13	.05	.20	.04*

Note: * $p < .05$

The finding that acculturation status predicted minority status stress (hypothesis 4c) prompted me to run additional analyses to determine the contribution of acculturation status to the five subscales of the minority status stress measure. This was assessed by conducting five simple regression equations with acculturation status as the predictor variable and one of the following five subscales as the outcome variable: social climate stress, interracial stress, racism and discrimination stress, within-group stress, and achievement stress.

In the first regression, acculturation status was a predictor of social climate stress ($R^2 = .14$; $F(1, 129) = 20.43$, $p < .001$; see Table 17). The second regression model indicated that acculturation status was a significant predictor of interracial stress [$R^2 = .14$; $F(1,129) = 21.29$, $p < .001$]. The third regression model also indicated that acculturation status was a significant predictor of racism and discrimination stress [$R^2 = .07$; $F(1, 129) = 10.32$, $p < .01$]. The fourth regression model also indicated that acculturation status was a significant predictor of within group stress [$R^2 = .04$; $F(1, 129) = 5.91$, $p < .05$]. The fifth regression indicated that acculturation status was a significant predictor of achievement stress [$R^2 = .18$; $F(1, 129) = 27.68$, $p < .001$]. These findings have suggested that less acculturated students are more likely to experience minority status stress than highly acculturated students.

Table 17: *Summary of Regression Analysis with Acculturation Status as the Predictor Variable of the Five Subscales of Minority Status Stress* (*N* =130)

Model	Outcome Variable	*B*	*SEB*	β	R^2
1	Social Climate Stress	-4.34	.96	-.37	.14***
2	Interracial Stress	-2.51	.54	-.38	.14***
3	Racism and Discrimination Stress	-1.84	.57	-.27	.07**
4	Within Group Stress	-1.07	.44	-.21	.04*
5	Achievement Stress	-2.59	.49	-.42	.18***

Note: * $p < .05$, ** $p < .01$, *** $p < .001$

CHAPTER FIVE

Discussion

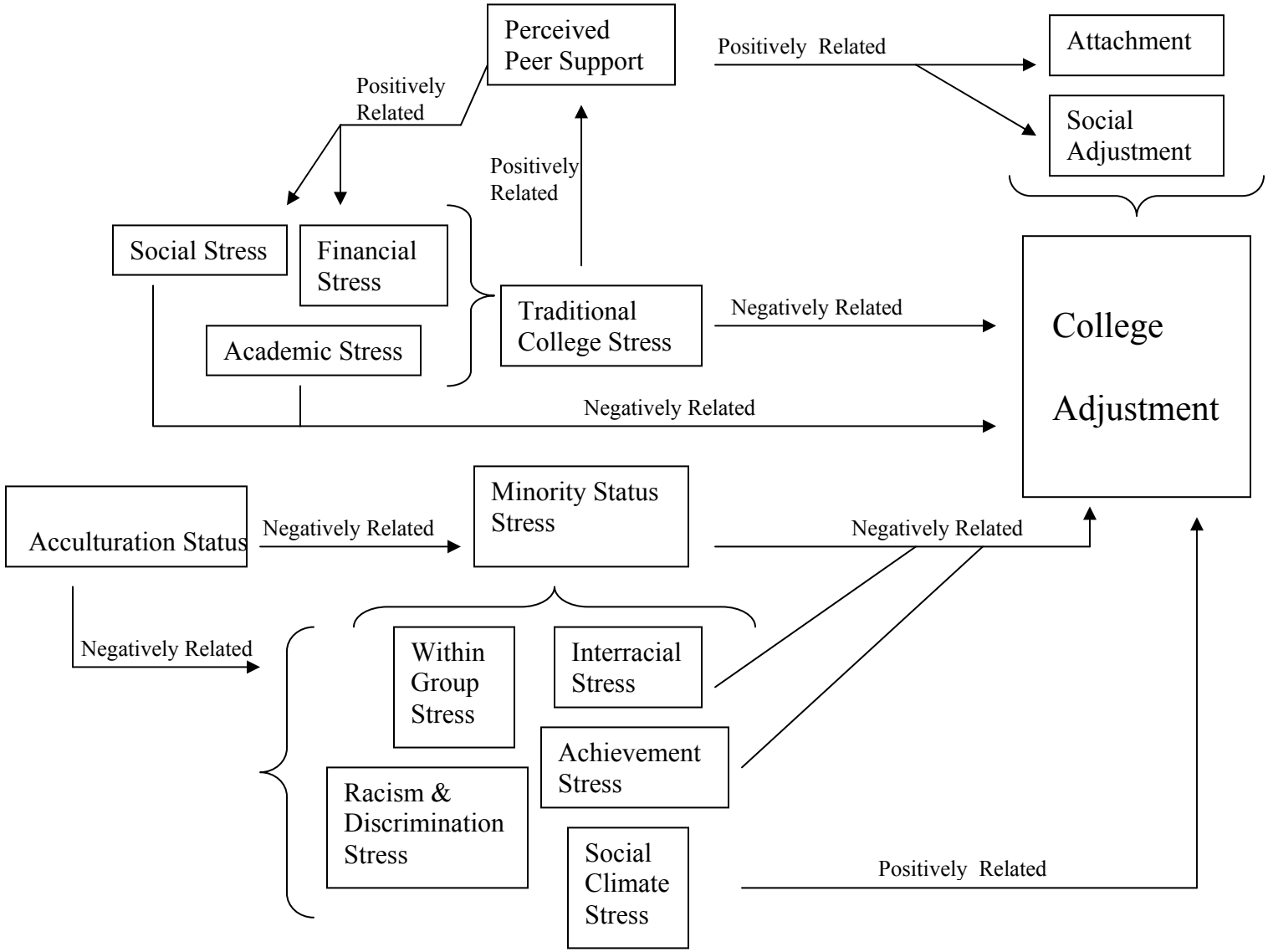
This study aimed to broaden the current field of research by examining the protective function of perceived peer support in response to traditional college stress and minority status stress in a sample of freshman and sophomore Mexican-origin students attending The University of Texas at Austin. Prior research has examined the protective function of social support in response to minority status stress and traditional college stress combined, but this is the first identified study to measure the extent to which perceived peer support protects individuals from the unique effects of traditional college stress and minority status stress. Also, this study contributes to the field by focusing on students of Mexican-origin to illuminate the presence of within group differences and the specific social needs of Mexican-origin students.

In this chapter, I discuss the findings of my dissertation which examined perceived peer support as a predictor of college adjustment in Mexican-origin students attending a predominantly White university. Special attention was directed to the function of perceived peer support in the face of minority status stress and traditional college stress. Key findings are highlighted, and then expanded upon in order of hypotheses particularly as they relate to prior research regarding perceived peer support, minority status stress, traditional college stress, acculturation, and college adjustment. Following the discussion of each hypothesis, I address the implications and limitations of the findings and make suggestions for future research. The chapter closes with a summary of limitations of the dissertation design, implications of findings, and future directions for research.

KEY FINDINGS

Several important findings were identified in the present study. Please refer to Figure 2 below for a conceptual model of the research findings. Higher levels of perceived peer support predicted increased levels of traditional college stress (i.e., financial stress and social stress) and increased levels of college adjustment (i.e., social adjustment and attachment). Traditional college stress, specifically academic stress and social stress, negatively predicted overall college adjustment. Of the five minority status stress subscales, achievement stress and interracial stress negatively predicted overall college adjustment while social climate stress positively predicted college adjustment. Finally, acculturation status negatively predicted all five types of minority status stress. These findings will be discussed in the following subsection.

Figure 2: *Research Findings*



PERCEIVED PEER SUPPORT AND COLLEGE ADJUSTMENT

A primary purpose of this dissertation was to determine whether perceived peer support predicted college adjustment in students of Mexican-origin. The proposed hypothesis that perceived peer support would predict overall college adjustment was not supported. This finding contradicted what many researchers have found regarding the relation between peer support and college adjustment in Latino students (Solberg et al., 1994). Most recently, Rodriguez and her colleagues (2003) identified peer support as a predictor of well-being in Latino students attending a predominantly Latino university.

There are several possible explanations for the finding that perceived peer support was not a significant predictor of overall college adjustment. One major difference between the present study and previous literature that has examined college populations is the ethnic and racial composition of the university. While my study focused on Mexican-origin students attending a predominantly White university, many other researchers who have focused on Latino students attending a predominantly Latino university (Rodriguez et al., 2003) or a special Latino program within a university (Solberg et al., 1994; Solberg & Villarreal, 1997) identified a significant relation between peer support or social support and adjustment.

Schneider and Ward (2003) found that general peer support (i.e., peer support from individuals from any cultural background) and peer support from Latinos can have very different implications depending on the composition of the university. They found that general peer support predicted social adjustment in Latinos attending a predominantly White campus while Latino peer support was not predictive of any facet of college adjustment. Schneider and Ward speculated that the small percentage of Latinos on campus (3%) limited the extent to which Latino peer support was available and beneficial to students. Therefore, Latino peer support may be more predictive of

adjustment in Latino students attending a predominantly Latino university because students are more likely to be surrounded by peers with similar backgrounds. While I did not specifically assess for the ethnicity of the participants' peers who provided them with social support, my results did demonstrate that the majority (61.2%) of Mexican-origin students felt most comfortable associating with Mexican-origin peers. Future research that examines the ethnicity of peers from whom Mexican-origin students perceive support as well as the contexts in which these supports are solicited may benefit the social needs and college adjustment of Mexican-origin students.

Another reason perceived peer support may not have predicted overall college adjustment is the small sample size (N = 136). Past research that has identified a significant relation between peer support and college adjustment has demonstrated a small effect size in a very large sample (N = 300 or more participants; Rodriguez et al., 2003; Solberg et al., 1994; Solberg & Villarreal, 1997). Therefore, it is likely that there was not enough power in the current sample to detect a significant finding. Future research in this area may benefit from larger sample sizes in order to detect significant findings with smaller effect sizes.

The absence of a significant finding may also be because my dissertation focused on Mexican-origin students whereas past research has combined Latino groups (Rodriguez et al., 2003; Schneider & Ward, 2003; Solberg et al., 1994; Solberg & Villarreal, 1997). Therefore, it is likely that perceived peer support predicts college adjustment in some Latino groups and not others. Future research may also benefit from comparing the relation of peer support and college adjustment among various Latino groups. This may help to highlight within group differences in the Latino population. However, before concluding that peer support is not predictive of college adjustment in

students of Mexican origin, I conducted secondary analyses to determine whether peer support was predictive of specific facets of college adjustment.

Secondary Analyses: Perceived Peer Support and Four Subscales of College Adjustment

Baker and Siryk (1999) underscored the importance of measuring college adjustment as a multifaceted construct. In the Student Adaptation to College Questionnaire Manual, the authors warned that important information about students' college adjustment may not be identified if investigators focus exclusively on the full scale. The results from my study have indicated that perceived peer support is predictive of social adjustment and attachment, or commitment to the university. These findings replicate previous research (Schneider & Ward, 2003) and highlight the importance of acknowledging the contexts of college adjustment and that a variety of social support resources may be needed to facilitate college adjustment in Mexican-origin students.

Social adjustment

Social adjustment refers to a "student's success in coping with interpersonal-societal demands inherent in the college experience" including social activities, "involvement and relationships with other persons on campus", "dealing with social relocation and being away from home and significant persons there", and "satisfaction with the social aspects of the college environment" (Baker & Siryk, 1999; p. 15). In the context of social adjustment, it appears that the perception of peer support, regardless of the ethnic or racial background of the peer, enables Mexican origin students to adjust socially to the university. Specifically, perception of peer support appears to help Mexican-origin students to become involved in and satisfied with campus activities enabling them to make a smooth social transition to college.

Attachment

Attachment to the university assesses "a student's degree of commitment to educational-institutional goals and degree of attachment to the particular institution the student is attending, especially the quality of the relationship or bond that is established between the student and the institution" (Baker & Siryk, 1999, p.15). Therefore, perceived peer support appears to assist Mexican-origin students in feeling satisfied with being in college and attending their particular university. It is likely that when Mexican-origin students' perceive peer support they experience personalismo, or relationships with others, and they feel more connected to the university creating a sense of community which facilitates a feeling of satisfaction of being in college and attending The University of Texas. Lower scores on the attachment subscale have been correlated with a greater likelihood of dropping out of college and less satisfaction with the college experience (Baker & Siryk, 1999). This research could be expanded by examining the specific contexts where Mexican-origin students perceive support from peers with a similar background to their own versus peers from different backgrounds and whether this influences their adjustment to college.

TRADITIONAL COLLEGE STRESS AND COLLEGE ADJUSTMENT

The hypothesis that more traditional college stress predicted lower levels of college adjustment in students of Mexican origin was supported. This finding is consistent with previous literature and suggests that Mexican-origin students who experience more stress in college may have more difficulties adjusting (Rodriguez et al., 2003; Solberg et al., 1997). To better interpret these results, I decided to conduct further analyses that might yield more accurate and detailed conclusions about the relation between stress and college adjustment.

Secondary Analyses: Academic, Financial, and Social Stress and College Adjustment

After conducting secondary analyses, I found that academic stress was the strongest negative predictor of college adjustment followed by social stress. Financial stress was not predictive of college adjustment. Solberg and his colleagues also identified academic and social stress as negative predictors of college adjustment (1994).

Academic stress

Academic stress includes stressors associated with understanding textbooks, preparing for and taking exams, writing papers, meeting deadlines, and handling one's academic workload. One explanation for increased academic stress may be the challenging curriculum at the university level. It has been documented that the academic demands of college are more stressful for Latinos than their White counterparts (Keefe & Padilla, 1987; Quintana et al., 1991) because they are under prepared for higher education (Zambone & Alicia-Saez, 2003). Moreno (1998) has indicated that adjustment to college is easiest for Latino students who earned higher grades in high school, come from higher socioeconomic backgrounds, and attended integrated high schools.

Academic stress is an important factor to consider when developing intervention programs to increase student retention rates. Researchers, university administrators, and academic counselors may benefit Mexican-origin students by focusing on ways to minimize academic stress because students who perceive more stress are likely to report lower levels of adjustment, and may influence an individual's decision to drop out of school. One possible intervention may be pairing Mexican-origin students with an upperclassman mentor or a faculty mentor from a similar cultural background. Research has repeatedly demonstrated the effectiveness of mentoring Latino college students, particularly if they have similar backgrounds (Bordes & Arredondo, 2005). Additionally,

if the counseling and mental health center or another type of student service increased the number of workshops that address coping with academic stress then academic counselors, resident advisors, and professors could strongly recommend a workshop to students having academic difficulties. Another possibility would be to require all students to partake in a workshop during the fall semester of their freshman year.

Social stress

A higher perception of social stress corresponded to lower scores on college adjustment. Social stress includes personal problems, asking for help with personal problems, balancing social and academic priorities, handling personal relationships, feeling that one's family does not understand one's lifestyle, and making decisions independent of one's family's wishes. One explanation for this finding is that students are in a new environment trying to meet new peers. Many Mexican-origin students who are trying to make new friends may also be experiencing "culture shock" because in their home towns or high schools they were in the ethnic or racial majority (Choi-Pearson and Gloria, 1995; Fisk, 1988; Gloria & Robinson Kurpius, 1996, Powell, 1998; p. 535). As indicated previously, culture shock refers to the anxiety individuals experience when they move to a new environment (Guanipa, 1998). One focus group participant explained:

I come from South Texas and it is predominantly Hispanic so for me it was all I grew up with and all I know. To come here I had to find my niche, my comfort zone. I should have branched out, but then there is always that security factor. So, you stay with your own race because you…feel safer. At first when I came here, I was really scared and I had come from my high school, but none of us stuck together so I was kind of here by myself and I was kind of left living in the dorms and I was left to make friends with other Hispanics around me.

Two other participants added that they had difficulties "finding Hispanics" on campus, including the dormitories and their classes. They stated that many of the campus programs aimed at helping minority students adjust to college were not very helpful. Therefore, students who are unable to find their "niche" or "comfort zone" may have difficulties adjusting to college.

One difference between students who are able to find their "niche" and those that are not may be related to personality factors. It is likely that students with certain personality factors are better able to navigate the social world of college. For example, one participant stated "I was really, really outgoing and outspoken and everything in high school, but the first two years in college I was so shy. I just totally- I freaked out and I didn't know how to interact with other people." She explained that after becoming involved in a Latina sorority, she regained her "comfort" and returned to her "outspoken and outgoing" self. While this participant was able to recover socially and adjust to college, many students are unable to negotiate the social world of college and may be at a greater risk of dropping out of college. For example, another participant stated:

> I think the number one reason for drop out is that they [students] are by themselves and they are not gong to have anyone who is there…and they will see themselves as being on their own and they want to go back to wherever they know they have people.

The cultural value of familismo, or the value placed on the importance of family, may be a deciding factor involved in students' decisions to leave college if they are having social difficulties. One focus group participant explained that students without peers feel "lonely" and they ask themselves "why would I stay here when I can't have anyone help me with my problems when I can just go home and get the moral support I need from my family?"

Based on these students' experiences, it is important that universities focus on enhancing their programs aimed at helping students to adjust to college, particularly in the social domain. It is important that these programs are well advertised and follow through with their promises to students.

Mexican-origin students who are able to make new friends and have a more active social life must learn to balance their academic and social priorities, which can be difficult for any college student. In addition to negotiating their new social environment, many Mexican-origin students may be making decisions independent of their family whereas in the past their family has been involved in their decision making. The social stressors that affect Mexican origin students highlight the multiple ways in which their adjustment to college may suffer. Given that several of the questions on the social stress subscale revolve around the family, future researchers may want to explore the role of familismo in students' lives and their experience with social stress. As previously indicated, familismo was defined as "an individual's strong identification with and attachment to his or her nuclear family and extended families and strong feelings of loyalty, reciprocity, and solidarity among members of the same family (Steidel & Contreras, 2003, pp. 313-314). Exploring the role of familismo in students' lives may help to understand whether there are differences in the perception of social stress based on the extent to which a person adheres to familismo.

Financial stress

The finding that financial stress did not predict college adjustment was surprising because previous literature has found that financial stress affects college adjustment. Fry (2002) has noted that many Latino students are older than traditional college students and may have to support themselves and/or their families making their financial situation stressful. Hurtado (2003) added that there is a negative relation between the hours

students work and their grades thus contributing to increased drop out rates in the Latino population. Though financial stress is not predictive of college adjustment in the present sample, it may be predictive of lower grades or academic achievement. Therefore, researchers who examine financial stress and college adjustment may want to include GPA as an outcome variable. Given that the present sample comprises traditional-age college students, it is possible that financial stress was less problematic for them than for older students who may be supporting their families in addition to themselves.

Many Latino students perceive financial issues to be stressful because they have less access to information about scholarship and loan opportunities (Nevarez, 2001). Zalaquett (2005) found that Latino students view scholarships as beneficial, and retention is a primary outcome of funding. This finding suggests that financial stress may not be as salient to the students in my sample because they may be receiving funding from the university, an outside source, or they may be involved in a work study program. The University of Texas at Austin is also more affordable than many other institutions, especially private ones, and may not trigger as much financial stress for students. In the future, researchers who examine the relation between financial stress and college adjustment may want to inquire about students' funding resources including parental financial assistance, loans, scholarships, and work-study positions to gain a better understanding of the relation between financial stress and adjustment.

PERCEIVED PEER SUPPORT AS A MODERATOR OF TRADITIONAL COLLEGE STRESS AND COLLEGE ADJUSTMENT

The final part of hypothesis two examined whether perceived peer support moderated the relation between traditional college stress and college adjustment. In contrast to what was hypothesized, perceived peer support did not moderate the relation between traditional college stress and college adjustment meaning that perceived peer

support did not buffer Mexican-origin students from the negative consequences of traditional college stress. Though this finding contradicted the proposed hypothesis, previous research investigating this question has been inconclusive (Rodriguez et al., 2003; Solberg et al., 1994; Solberg & Villarreal, 1997). One difference between the studies that have found an interaction effect and the studies that have not may be related to the outcome variable. Solberg and Villarreal (1997) identified an interaction effect between social support and stress when he examined physical distress as the outcome variable. However, an interaction effect has not been identified when the outcome variable was college adjustment (Rodriguez et al., 2003; Solberg et al., 1994). One explanation for inconclusive findings is that peer support may only buffer students from traditional college stress in certain circumstances. Future research that examines whether peer support protects students from college stress should consider assessing multiple outcome variables including physical distress, college adjustment, GPA, and mental health. This type of research may be useful in determining the specific circumstances in which peer support buffers students from stress.

MINORITY STATUS STRESS, PERCEIVED PEER SUPPORT, AND COLLEGE ADJUSTMENT

In the third hypothesis, increased minority status stress predicted lower levels of college adjustment in students of Mexican-origin. This result is consistent with previous literature that has indicated an increased perception of minority status stress is related to decreased college adjustment (Alvan et al., 1996; Hurtado, 1994; Hurtado & Carter, 1997; Smedley et al., 1993).

The fact that there are Mexican-origin students at The University of Texas at Austin not adjusting well to college as a consequence of their perception of minority status stress is of concern. Many participants in the focus groups expressed stressors related to their minority status. One student reported experiencing interracial stress:

"there is adversity and a lot of tension here…..it is a diverse school, but it is also a very segregated school. They have, like, a lot of narrow minded people here." Another participant reported discrimination stress, and believed he was "a little discriminated against" by a professor and thought the professor had different grading criteria for minority students. This research finding coupled with student reports indicates that intervention programs need to be designed or modified to decrease the extent of minority status stress perceived by students. In order to improve current programs or design new interventions, it is important to know the particular facets of minority status stress that affects Mexican-origin students.

Secondary Analysis: Subscale of Minority Status Stress and College Adjustment

I conducted secondary analyses to determine the particular facets of minority status stress (i.e., achievement stress, interracial stress, social climate stress, racism and discrimination stress and within group stress) that affect college adjustment. Achievement stress and interracial stress negatively predicted college adjustment while social climate stress positively predicted college adjustment. Racism and discrimination stress and within group stress did not significantly contribute to college adjustment.

Achievement stress

Achievement stress refers to individuals' doubts about their ability to succeed in college, feeling less intelligent or capable than others, feeling unprepared academically, one's family having high expectations for college success or not understanding the pressures of college, and being the first in family to attend college. Based on the literature (Zalaquett, 2005; Zambone & Aliciea-Saez, 2003) it is not surprising that Mexican-origin students would experience these difficulties and that these stressors could impair their college adjustment.

In one study examining successful Latino college students, Zalaquett (2005) identified several "barriers" to succeeding in college based on student's experiences in high school. First, he noted that many Latino students receive "minimal adult supervision" with regard to making educational decisions because many of their parents have very low English proficiency and others have little or no experience with higher education. Zalaquett's research further indicated that many educators have not advised Latino students about higher education or shown much interest in their success at the post secondary level. According to Zambone and Alicea-Saez (2003), The White House Initiative on Educational Excellence for Hispanic Americans in 1999 indicated Latino students are less likely to have access to a competitive curriculum because they are more likely to attend segregated schools with limited funding. These findings appear to be applicable to participants in my dissertation study as well. For example, in the focus groups one participant indicated that his high school "had a high drop-out rate and teen pregnancy rate. It was really bad. The teachers don't care over there…It's really overwhelming when you come here." Therefore, it is not surprising that Mexican-origin students would feel stressed about their ability to succeed in college.

In addition to doubting their abilities to succeed in the college environment, many Mexican-origin students have additional pressures from their family to successfully graduate from college or to come back home and assist with family responsibilities. While many Latino families are very supportive of their sons and daughters pursing a college education (Zalaquett, 2005), those families who are unfamiliar with higher education may not know how exactly to support their child or ensure their child's academic success (Trueba & Delgado-Gaitan, 1988). Other parents, however, are not very supportive of their children attending college. In my focus groups, one student indicated "my parents are so old fashioned and they are, like, no, you're not going to go

to college. You are going to work. That's how things are: you have to support the family." Another participant stated that her parents are proud of her in front of their friends, "but when it comes down to it they are not supportive."

These examples illustrate the potency of achievement stress in the Mexican-origin population. This is an issue that pervades the ecological system at every level and has significant influence on Mexican-origin college students today. At the high school level, Zalaquett (2005) has suggested that school personnel who work with Latino families need to become more familiar with the Latino traditions including values, norms, and beliefs. As a result, teachers and counselors can become more effective at increasing Latinos' success with applying to and graduating from an institution of higher education. These same principles can be implemented at the college level to create a campus climate that is open and aware of diversity issues. For example, faculty, staff, and students need to be educated about the experiences of Mexican-origin students as well as other minority students. This will enable them to learn how to create a campus that is accepting and understanding of students of all races and ethnicities. Education of this sort will not only benefit individuals at the college level, but will help them to be successful with diverse populations when they enter the workplace.

Interracial stress

In addition to achievement stress, interracial stress was also a predictor of negative college adjustment. Interracial stress refers to having difficulties with other racial and ethnic groups including having White friends, a White-oriented campus climate, a lack of supportiveness among members of similar races at the university, and trying to maintain one's ethnic identity. This finding also underscores the importance of increasing multicultural awareness in the campus community to foster a campus climate that is accepting of all individuals on campus.

In addition to facilitating an accepting campus climate, positive interracial relations play an important role in "positive learning experiences and democratic skills" (Hurtado & Ponjuan, 2005, p. 236). Hurtado and Ponjuan also found that students, including Latinos, who participated in academic support programs, experienced a greater sense of belonging, increased skills and confidence, and decreased feelings of doubts about belonging at the institution. Therefore, it may benefit the campus community to create academic support programs for students of all races.

Social climate stress

Another interesting finding regarding minority status stress and college adjustment was that social climate stress enhanced college adjustment in students of Mexican-origin. Social climate stress refers to perceptions of a negative campus climate in the context of race and ethnicity. Hurtado and Ponjuan (2005) have noted that students who are critical of the campus racial climate at their university and join with other students "to achieve social justice, counter stereotypes, and build awareness and appreciation of group differences in college…not only resulted in a higher sense of belonging in college, but also increases in confidence and skills that reflect a pluralistic orientation" (p. 248). This finding suggests that many students who feel passionate about race relations and enhancing the campus climate actively cope with their stress by initiating reform at the university level. Given that social climate stress predicted college adjustment in the current study, it is possible that students at The University of Texas at Austin are actively coping with these stressors by becoming involved in organizations that stress social justice and awareness. Future research that examines the coping mechanisms, including the types of campus organizations students become involved in, to help them manage social climate stress may provide useful information for the

development of intervention programs that assist students with developing effective skills for coping with minority status stress.

Mexican-origin students may also be coping with these stressors by confiding in peers from similar backgrounds, thus increasing their perception of support at the university, subsequently enhancing their adjustment. For example, in the focus groups, one female student stated that "because of the support Latina students are finding in their social organizations, they are actually doing better in school. They are staying in school and they are, like, finishing college." A male student added "Yeah, actually, I agree. Like, this Latino thing it's a culture you feel like you are really a part of and you belong there…it's like an unspoken bond." Future research that examines the ways in which students cope with minority status stress, including their involvement in student organizations and peer support, may be help to benefit minority students by providing more detailed information about coping with stress that can help to bolster current intervention programs.

Racism and discrimination stress

Interestingly, racism and discrimination stress did not contribute significantly to college adjustment. This finding may be connected to the statement I made in the previous section that students may be actively coping with racism and discrimination in student organizations, for example, helping them to transform their negative energy from racism and discrimination into positive energy by making changes at the university level. The sample in my dissertation study may also be a selective population. Since the majority of my participants were recruited from the Center for Mexican American Studies and the Latino Leadership Council, it is likely that my sample was weighted toward students more involved in Latino issues. The results may have been more generalizable had I achieved a greater balance between participants involved in Mexican

or Latino affiliated organizations and individuals involved in other organizations or not involved in any organizations.

Perceived Peer Support as a Moderator of Minority Status Stress and College Adjustment

The third hypothesis was that perceived peer support would moderate the relation between minority status stress and college adjustment. In contrast to this prediction, perceived peer support did not moderate the relation between minority status stress and college adjustment, meaning that perceived peer support did not buffer Mexican-origin students from the negative effects of minority status stress. Though this finding contradicted the proposed hypothesis, past research investigating this question has been inconclusive (Rodriguez et al., 2003; Solberg et al., 1994; Solberg & Villarreal, 1997). Solberg and Villarreal (1997) found that students who perceived social support in stressful conditions were buffered from the negative effects of physical distress. Though Solberg and Villarreal identified a buffering role of social support, they assessed a general construct of social support to peer support, and they did not distinguish between minority status stress and other stressors when they assessed for stress. The detection of the buffering hypothesis may reflect their assessment of very broad constructs. Similar to my results, Rodriquez and her colleagues (2003) did not detect an interaction effect between peer support and minority status stress and concluded that peer support may enhance college adjustment without buffering them from the effects of stress. Future research may benefit from expanding Solberg and Villarreal's study to determine the specific type of social support that buffers individuals as well as the specific stressors that students are protected from.

ACCULTURATION

A fourth purpose of the study was to explore whether acculturation status influenced the relation between perceived peer support and college adjustment, perceived peer support and traditional college stress, and perceived peer support and minority status stress. Since research findings on the role of acculturation, peer support, stress, and adjustment have been equivocal, no specific hypotheses were proposed. The research questions are labeled accordingly.

ACCULTURATION STATUS AS A MODERATOR OF PERCEIVED PEER SUPPORT AND COLLEGE ADJUSTMENT

The first part of research question four examined whether acculturation status moderated the relation between perceived peer support and college adjustment. The results indicated that acculturation status did not moderate the relation between perceived peer support and college adjustment. This finding suggests that an individual's acculturation status does not strengthen or weaken the relation between perceived peer support and adjustment. The absence of a significant interaction effect was not surprising given the equivocal research findings focused on acculturation, social support, and adjustment. This finding was also not surprising because there was not a significant relation between perceived peer support and college adjustment examined in Hypothesis 1.

PERCEIVED PEER SUPPORT AND ACCULTURATION STATUS AS CONTRIBUTORS TO TRADITIONAL COLLEGE STRESS

The second part of research question four examined whether perceived peer support and acculturation status contributed significantly to traditional college stress. The results indicated that perceived peer support contributed significantly to traditional college stress whereas acculturation status did not. The finding that perceived peer support predicted higher levels of traditional college stress was surprising. I was

interested in taking a closer look at the types of traditional college stress (i.e., financial, social, and academic) predicted by perceived peer support.

Secondary Analyses: Perceived Peer Support as a Predictor of Traditional College Stress

I conducted further analyses which demonstrated that perceived peer support predicted social stress and financial stress, but not academic stress. I was not surprised that perceived peer support predicted social stress. For example, students who perceive peer support may struggle more with balancing their academic and social commitments. In addition, individuals who perceive greater levels of peer support may be indebted to their peers when they are in need of support, thus contributing to their experience of social stress. Conversely, it is likely that students who are stressed perceive more support from their peers.

Previous researchers have suggested examining minority status stress and traditional college stress separately, rather than combining the two stressors into one measure of stress, in Latino populations (Rodriguez et al., 2000). Based on my findings, however, it also appears important examine the subscales (i.e., academic, social, and financial) of the traditional college stress measure to gain an increased understanding of the areas in which students perceive stress.

The finding that perceived peer support predicted financial stress was an interesting finding. One explanation may be that Mexican-origin students who have a tighter budget may experience greater financial stress if they have peers with a more flexible budget. For example, Mexican-origin students may experience financial stress if they are unable to spend money on recreation and entertainment when they are with their friends. Several of the students' explained that they experienced great financial stress at college. For example, one student stated "I am working my way through college and

paying for myself and I don't have support at all from my family." She added that she preferred associating with "Latina" peers because they are in a similar financial situation: "you can relate in a financial aspect because like I know that all the girls in my sorority-none of them are rich…so, we are all kind of financially unstable and trying to get our education."

ACCULTURATION STATUS AS A MODERATOR OF PERCEIVED PEER SUPPORT AND TRADITIONAL COLLEGE STRESS

The third part of research question four examined whether acculturation moderated the relation between perceived peer support and traditional college stress. Once again the results failed to identify a significant interaction term suggesting that acculturation status does not influence the relation between perceived peer support and traditional college stress. One explanation for this finding is that the contexts of traditional stress, including social stress, financial stress, and academic stress, may be more dependent on other personality factors, such as internal coping mechanisms. As the name implies, traditional college stress is likely to affect all college students regardless of race, ethnicity, or level of acculturation.

PERCEIVED PEER SUPPORT AND ACCULTURATION STATUS AS CONTRIBUTORS TO MINORITY STATUS STRESS

The fourth part of research question four examined whether perceived peer support and acculturation contributed significantly to minority status stress. The findings indicated that acculturation status was a significant predictor of minority status stress whereas perceived peer support was not. Further analyses indicated that acculturation status negatively predicted all five types of minority status stress: social climate stress, interracial stress, racism and discrimination stress, within group stress, and achievement stress. This finding suggests that students who are more acculturated experience fewer

minority status stressors. One explanation may be that as Mexican-origin students become more acculturated they differ from less acculturated individuals in what they perceive to be a minority status stressor. For example, more acculturated individuals may not perceive as many achievement related stressors as less acculturated individuals particularly if their family has a higher socioeconomic status and their parents graduated from college. In the future, researchers may examine the differences in perceptions of minority status stress in Mexican-origin individuals with varied acculturation statuses.

Previous research has indicated that students who endorsed behaviors characteristic of being less acculturated may perceive a more hostile campus climate, which includes minority status stressors (Hurtado & Ponjuan, 2005). Specifically, Hurtado and Ponjuan found that students who tended to speak Spanish at home were more likely than students who primarily speak English to perceive a hostile campus climate. Saldaña (1994) also found that acculturation status is an important predictor of minority status stress. In her research, Saldaña also found that ethnic identity was associated with minority status stress. Therefore, it is likely that other variables associated with ethnicity, including ethnic identity, are also contributing to a students' perception of minority status stress. In the future, researchers who examine acculturation and minority status stress may gain an increased understanding of this relation by including ethnic identity as well.

ACCULTURATION AS A MODERATOR OF PERCEIVED PEER SUPPORT AND MINORITY STATUS STRESS

The final research question examined whether acculturation moderated the relation between perceived peer support and minority status stress. There was no significant interaction suggesting that acculturation status does not influence the relation between perceived peer support and minority status stress. An absence of an interaction

effect was not surprising given that perceived peer support was not significantly related to minority status stress (see Research Question 4d in Results Chapter). This finding indicates that perceived peer support is not predictive of minority status stress regardless of an individual's acculturation status.

LIMITATIONS

While these research findings have several important implications, there are some limitations that need to be addressed. First, the small sample size (N = 136) may be related to fewer significant findings. For example, researchers who have identified a relation between perceived peer support or social support and college adjustment identified a small effect (3-6%) using a sample of 300 plus individuals (Rodriguez et al., 2003; Solberg et al., 1994; Solberg & Villarreal, 1997). In the present study, a small effect size was also identified (3%), but it is likely that low power contributed to the absence of a significant effect.

Additionally, the composition of the sample, which included predominantly females and college freshman, may have influenced the results. Therefore, generalizations of the current findings to the general population should be made with caution. Further, the students in the study were traditional college age students. Past research indicates that many Mexican-origin students are older than traditional college students and consequently have different experiences. Thus, the findings in the current study may not be applicable to non-traditional college students. Finally, the participants were recruited through the Center for Mexican American Studies, the Educational Psychology subject pool, and the Latino Leadership council. Therefore, it is likely that the sample of participants may be different, (i.e., have a special interest or be more passionate about Mexican-origin issues) than students who opted not to participate in the study.

SUMMARY

Several important findings were identified in the present study. As indicated previously, perceived peer support positively predicted two types of traditional college stress (i.e., financial stress and social stress) and two types of college adjustment (i.e., social adjustment and attachment). Traditional college stress, specifically academic stress and social stress, negatively predicted overall college adjustment. Of the five minority status stress subscales, achievement stress and interracial stress negatively predicted overall college adjustment while social climate stress positively predicted college adjustment. Finally, acculturation status negatively predicted all five types of minority status stress.

Theoretical implications

These research findings highlight the importance of accounting for context when trying to understand an individual's college experience. Bronfrenbrenner's EST provided a solid theoretical base to organize the multiple contexts that influence the lives of Mexican-origin college students. At the same time Spencer, Depree, and Hartmann's PVEST accounted for an individual's perspective on the ways the contexts of one's life fit together and influence one another. As indicated previously, the microsystem, or the innermost system of the model, directly influences an individual. In this study, peer support, college adjustment, cultural variables (i.e., personalismo & familismo), minority status stress and traditional college stress directly influenced individuals in many ways leading to a very complex dynamic in the microsystem. Therefore, it is very important to consider the individual, cultural variables, the specific stressor, and the context of the outcome variable when trying to make sense of college students' experiences in college.

Other systems in the EST also influenced the individual. The next system, the mesosystem, comprised the relations between the contexts in the microsystem (i.e., the

relation between the home and school, peers and family, family and school). Renn and Arnold (2003) have suggested that a college student's mesosystem may include interactions among academic, social, family, and work contexts. For example, students' families not supportive of them attending college had more difficulties adjusting to school while students who perceived more peer support tended to experience more financial stress.

The macrosystem, or the outermost system, exerted the influence of culture on the individual and the other systems. The macrosystem includes ideas about gender, race and ethnicity that influence all of the systems in the ecological environment (Renn & Arnold, 2003). The macrosystem also includes structural components of social stratification that influence people's ideas about gender, race, and ethnicity in society and "are both social and concrete and operate to segregate and discriminate against ethnic/racial [sic] groups" (Verdugo, 1995, p. 670). These components influence other people's ideas of minority groups and serve to isolate group members, generate misunderstanding, and increase discrimination of minority groups (Vergudo). The ideas generated in this system affect an individual's microsystem and may negatively influence a minority student's college experience if ideas of race and culture instigate beliefs that increase prejudice, discrimination, and racism. Mexican-origin students' experience of minority status stress and negative perceptions of the campus environment are influenced by the macrosystem.

The third theory examined in my study was the buffering hypothesis, or that social support buffers individuals from the negative effects of stress. I specifically examined whether perceived peer support buffered Mexican-origin students from minority status stress and traditional college stress. While this theory was not supported in my dissertation, perceived peer support did enhance the adjustment of many college students, particularly their social adjustment and attachment. In the future, researchers

may opt to conceptualize the role of peer support and adjustment from another perspective. Bell, LeRoy, and Stephenson, and Mallinckrodt and Fretz (as cited in Solberg et al., 1994; Solberg & Villarreal, 1997) offered an alternative perspective on social support suggesting that social support may enhance an individual's adjustment, such that individuals who perceive social support will fare better than those who do not. This theory appears to be more applicable to my research findings because I found that individuals who perceived peer support reported higher levels of social adjustment and attachment to the university than those who did not perceive peer support.

Clinical implications

The research findings from my dissertation study also have useful implications for practice, particularly for counseling psychologists and other mental health care professionals. My results highlight the role of culture in individuals' lives, and the importance of being knowledgeable and aware of cultural differences when working with individuals from diverse backgrounds. Mental health practitioners need to be aware of common cultural practices, values, and beliefs (e.g., personalismo and familismo) of their clients' and understand that these cultural variables may have influenced individuals' worldviews thus influencing their experiences in college. At the same time, it is also important for practitioners to be cognizant that not all individuals from a particular background take part in the cultural traditions associated with their race or ethnicity. In other words, mental health professionals need to make sure not to generalize the experiences and practices of one Mexican-origin student to all Mexican-origin students, or all Latinos. To best treat a client, it may be beneficial to ask about the role of culture in his or her life.

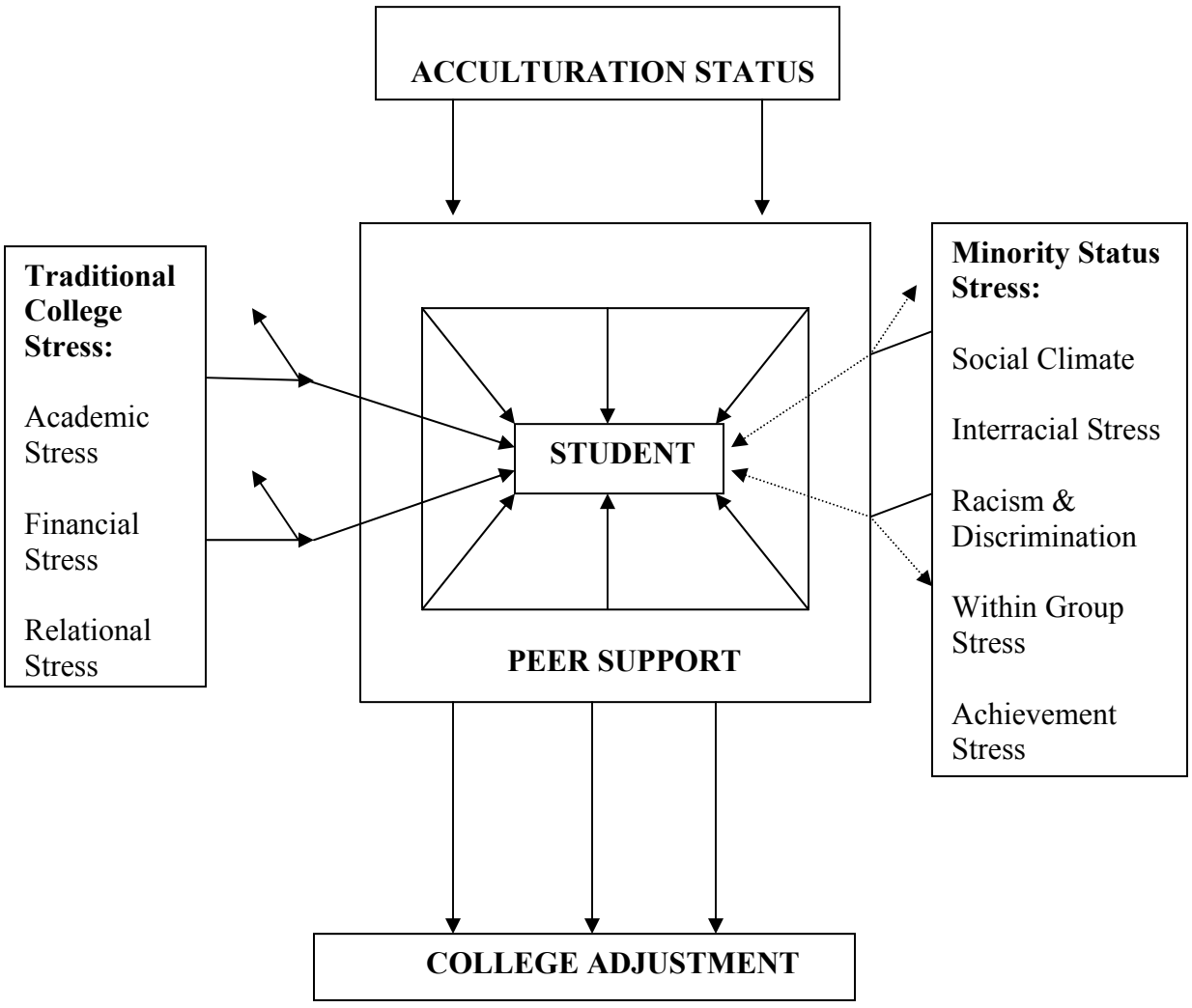
My research findings also provide insight about the experiences of Mexican-origin college students. Based on my results, many Mexican-origin students reported

experiencing minority status stress and traditional college stress that affect their college adjustment. Clinicians may use this information to develop workshops through the university counseling center or outreach programs for the campus community. Topics that may be of central importance and of interest to Mexican-origin students might address coping with academic stress and minority stress, and negotiating the social world at college.

In summary, the research findings underscore the importance of peers to Mexican-origin college students. Peers appear to help students negotiate the transition to college by fostering a sense of belonging on campus. While it is likely that Mexican-origin individuals may feel more comfortable addressing minority status stressors with other Latino peers, it is also likely that peers from other backgrounds are able to assist Mexican-origin students with other stressors also contributing to their college adjustment. It is also important to realize that family support continues to be an important mode of social support for Mexican-origin students. Future research that addresses the specific contexts where Latino peer support, general peer support, and family support are most beneficial to students may assist in the development of interventions at the college level. Overall, it is my hope that researchers, programmers, and campus administrators take the time to incorporate my research findings into their practice and future research in order to most effectively help Mexican-origin college students succeed.

Appendix A

Conceptual Model



Appendix B

Definition of Terms

Acculturation
The process whereby an individual of one cultural group adopts the beliefs and behaviors of another group (Birman, 1994).

Buffering Hypothesis
A biosocial response perspective that states social support will buffer an individual from the potentially negative impact of stress by activating during times of stress (Caplan, 1974; Cassel, 1974). Therefore, individuals who perceive that social support is available during stressful experiences will have less difficulty responding to stressful episodes than individuals who do not perceive social support.

Campus Climate
"The product of various elements that include the historical, structural, perceptual, and behavioral dimensions of the college environment. Each of these dimensions can affect a student's psychological response to the environment" (Hurtado, 1994, p. 22).

College Adjustment
The extent to which students adapt to the various demands of the college experience. These demands include educational demands, interpersonal-societal demands, the degree to which a student is experiencing psychological or physical distress as well as the quality of the relationship between the student and the institution. Indicators of college adjustment include college persistence, psychological well-being, and performing well academically (Baker & Siryk, 1989).

Familismo
A Latino cultural value "that involves an individual's strong identification with and attachment to his or her nuclear family and extended families and strong feelings of loyalty, reciprocity, and solidarity among members of the same family" (Cauce & Domenech-Rodriguez, 2002; Cortes, 1995; Marin & VanOss Marin, 1991; Sabogal et al., 1987, Steidel & Contreras, 2003, p. 313-14).

Minority Status Stress
Unique stressors experienced by minority college students because of their minority group membership and "marginal social, political, and economic status of many minority students" (Smedley et al., 1993, p. 436).

Perceived Peer Support
Individuals' perceptions that social resources, or their needs for information, feedback, and support, from peers are satisfied (Procidano & Heller, 1983).

Perceived Support
An individual's perception that social resources are available (Cohen, Gottlieb, & Underwood, 2000).

Personalismo
A Latino cultural value that emphasizes connection to others (Comas-Diaz, 1989) and a warm and intimate way of relating to others (Choca, 1979).

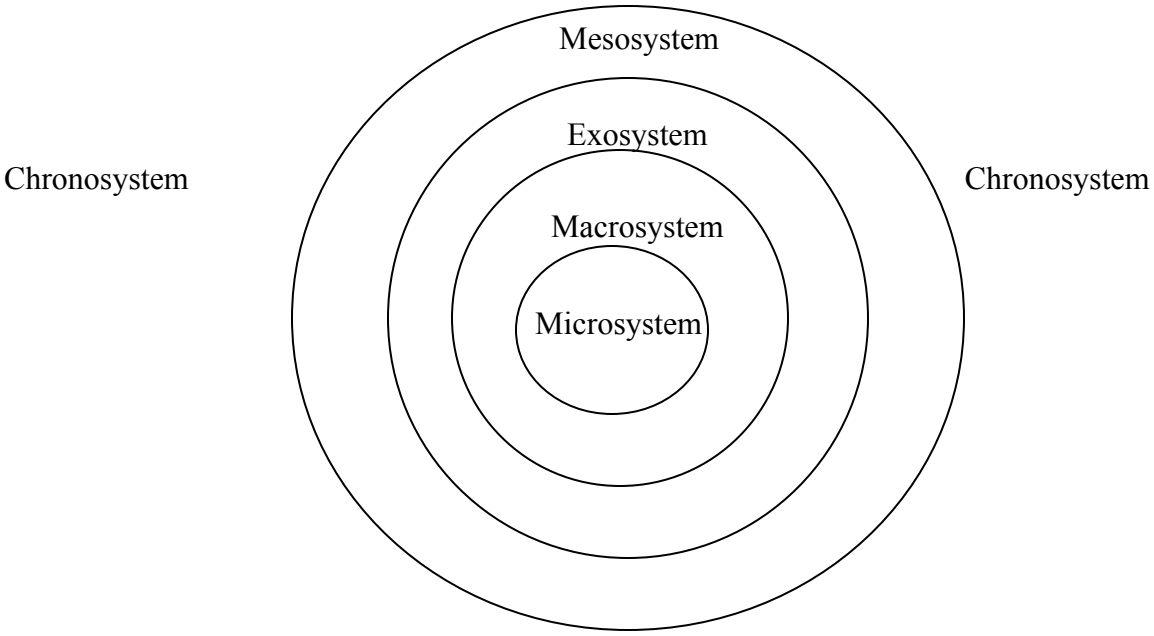
Predominantly White University
A university where the majority of the population is at least 50% White.

Social Support
Information from others that one is loved and cared for, esteemed and valued, and part of a network of communication and mutual organizations (Cobb, 1976).

Traditional College Stress
Stressors that are experienced by and affect all college students such as academic demands, relationship problems, and financial concerns (Smedley et al., 1993).

Appendix C

Model of Bronfenbrenner's Ecological System's Theory



Microsystem
Directly influences an individual and comprises the individual and a specific context (e.g., home, peers, university, neighborhood, social organizations).

Mesosystem
Comprises the relations between the contexts in the microsystem including interactions among academic, social, family, and works contexts.

Exosystem
Incorporates settings that do not include the individual, but indirectly influence an individual such as policies regarding financial aid or family income for dependent college students.

Macrosystem
Exerts the influence of culture, including ideas about gender, race, and ethnicity, on the individual and the other systems.

Chronosystem
Encompasses the dimension of time and accounts for change and constancy in both the person and the environment.

Appendix D

Electronic Recruitment Letter for Focus Study Participants

Subject Line of Electronic Letter:
Invitation to Participate in Study on Mexican Americans & Chicanos(as)

How would you like to win 20 DOLLARS CASH and talk with other students about your experiences at UT?

You are invited to participate in a study on the role of social support in Mexican-origin college students. For the purpose of this study, Mexican-origin is defined as any student born in the United States of Mexican ancestry (or of Mexican descent), meaning a parent, grandparent, great-grandparent, great-great-grandparent, etc. from Mexico. Mexican-origin students may identify in a number of ways including Mexican American, Chicano/a, Latino/a, or Hispanic. The rationale for focusing on students of Mexican-origin in this particular study is to respect the differences between Latino subgroups.

Participating in this study will involve completing an online survey on your experiences in college and having a small group discussion on your experiences with peers during your freshman year in college.

The online research and the focus group should take approximately 2 hours to complete. All participants will receive $20 for their time. If you are interested in learning more about the study or participating, please contact me at dinak@mail.utexas.edu or 833-0419.

Please indicate the following times that will work for you (you may select more than one time)
____Wednesday June 29, 10:00-12:00
____Thursday June 30 1:00-3:00
____Wednesday July 6, 10:00-12:00
____Thursday July 7, 1:00-3:00
____Friday July 8, 10:00-12:00
____Friday July 8, 1:00-3:00
____Wednesday July 13, 10:00-12:00
____Thursday July 14, 1:00-3:00
____Friday July 15, 10:00-12:00
____Friday July 15, 1:00-3:00
(The study will take place in the Education Building (Sanchez Building)).
If you would like to participate, but are unable to commit to the available times please provide a 2 hour time slot that WOULD work for you.
Thank you very much for your time and consideration. I hope to hear from you soon!

Appendix E

Informed Consent for Focus Group Participants

Informed Consent to Participate in Research

The University of Texas at Austin

You are being asked to participate in an online research study and a focus group. This form provides you with information about the study. This project involves gathering data through an online survey that will inquire about your experiences at The University of Texas at Austin. The purpose of the focus group is to get your feedback about the online research including the amount of time to complete it and its ease of use, wording, and clarity. You will also have the opportunity to share your experiences with peers during your freshmen year in college. The online research and the focus group should take approximately 2 hours to complete. Questions will be developed from the information you provide during the focus group and will be included in the next phase of the study. The results of this data will also be used in partial fulfillment of the primary investigator's doctoral dissertation research requirement, and may be published in scholarly journals or presented at professional conferences. Participants in this study must be at least 18 years of age.

As a participant in this research, you should read and understand the following:
1. Your participation in this research is VOLUNTARY. You are not required to answer every question that might be asked. This means that you are free to stop participating at any point.
2. There is no more than minimal risk associated with participation in this survey. Possible psychological risks are likely to be small and unlikely to occur. You may at any time discontinue participation. Findings of this study may contribute to the literature by providing information that may be helpful for Mexican-origin college students.

Title of Research Study:
Peer Support as a Predictor of College Adjustment in Students of Mexican-origin.

Principal Investigator(s) (include faculty sponsor), UT affiliation, and Telephone Number(s):
Dina Kopperman, Doctoral Student, Counseling Psychology, 762-3979
Marie-Anne Suizzo, Ed.D, Educational Psychology, 471-0379
Michele Guzman, Ph.D., Counseling Psychology, 471-0374

What is the purpose of this study?
This study is a pilot study for a larger scale study that will take place during the 2005-2006 school year. The purpose of this study is to explore the importance of perceived peer support to the adjustment of Mexican-origin college students, with special attention given to the function of peer support in the face of minority and traditional college stressors. A second major goal of this study is to highlight the differences within the Mexican-origin population by exploring whether acculturation status influences the relationship between perceived peer support and stressors and college adjustment.

What will be done if you take part in this research study?
I. If you decide to participate in this study, you will complete six different questionnaires that ask you about various types of academic and social experiences and feeling that you may have experienced during your first year at U.T.

II. You will also participate in a focus group where you share your impressions of the web based survey and your experiences with peer support at The University of Texas during your freshman year. The focus group will be audio taped and stored in a locked file cabinet. When the tape is transcribed, your name will be replaced with a number to ensure confidentiality.

What are the possible discomforts and risks?
The risks associated with this study are very minimal as the questionnaires do not ask for extremely private information. The questionnaires are not intended to trigger any discomfort or anxiety; however, if you do feel that you have been adversely affected you may contact a mental health counselor at The University of Texas at Austin Counseling and Mental Center (512-471-3515).

What are the possible benefits to you or to others?
By being involved, you will be providing information that may be helpful for Mexican-origin college students. In addition, the information you provide may help to foster a greater multicultural awareness in institutional settings and reduce the attrition rates of Mexican-origin students attending college.

If you choose to take part in this study, will it cost you anything?
If you choose to take part in this study, it will cost you approximately two hours of your time.

Will you receive compensation for your participation in this study?
You will receive 20 dollars for your completing the web based study and the focus group.

What if you are injured because of the study?
If injuries occur as a result of study activity, eligible university students may be treated at the usual level of care with the usual cost for services at the Student Health Center, but

no payment can be provided in the event of a medical problem. It is safe to say; however, no injuries are anticipated.

If you do not want to take part in this study, what other options are available to you? Participation in this study is entirely voluntary. You are free to refuse to be in the study, and your refusal will not influence your current or future relationship with The University of Texas at Austin or the organization or department through which you received this email.

How can you withdraw from this research study and who should I call if I have questions? If you wish to stop your participation in this research study for any reason, you should contact: Dina Kopperman at (512) 762-3979 or dinak@mail.utexas.edu . You are free to withdraw your consent and stop participation in this research study at any time without penalty. Throughout the study, the principle investigator will notify you of new information that may become available and that might affect your decision to remain in the study.

In addition, if you have questions about your rights as a research participant, please contact Clarke A. Burnham, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects, 512/232-4383.

How will your privacy and the confidentiality of your research records be protected? Authorized persons from The University of Texas at Austin and the Institutional Review Board have the legal right to review your research records and will protect the confidentiality of those records to the extent permitted by law. If the research project is sponsored then the sponsor also has the legal right to review your research records. Otherwise, your research records will not be released without your consent unless required by law or a court order.

If the results of this research are published or presented at scientific meetings, your identity will not be disclosed.

Will the researchers benefit from your participation in this study? NO

Signatures:

As a representative of this study, I have explained the purpose, the procedures, the benefits, and the risks that are involved in this research study:

_____ _____

Signature and printed name of person obtaining consent Date

You have been informed about this study's purpose, procedures, possible benefits and risks, and you have received a copy of this Form. You have been given the opportunity to

ask questions before you sign, and you have been told that you can ask other questions at any time. You voluntarily agree to participate in this study. By signing this form, you are not waiving any of your legal rights.

_____

Printed Name of Subject Date

_____

Signature of Subject Date

_____

Signature of Principal Investigator Date

Appendix F

Peer Support Questions

At The University of Texas at Austin, my peers are predominantly_____.
□ Mexican American or Chicano/a
□ White
□ African American
□ Asian
□ Other (Please Specify)

At The University of Texas at Austin, I feel MOST comfortable associating with peers who are _____.
□ Mexican American or Chicano/a
□ White
□ African American
□ Asian
□ Other (Please Specify)

I wish I had more friends at The University of Texas at Austin.
□ True
□ False

Please rate how important peers are to YOU in college on a scale of 1-10, with 1 being "Not Important at All" and 10 being "Extremely Important."
□ 1
□ 2
□ 3
□ 4
□ 5
□ 6
□ 7
□ 8
□ 9
□ 10

Overall, peer support is more important than family support at college.
□ True
□ False

Appendix G

Electronic Recruitment Letter for Data Collection Participants

Subject Line of Electronic Letter:
Invitation to Participate in Study on Mexican Americans & Chicanos(as)

How would you like a chance to win 50 DOLLARS CASH by completing an online survey about your experiences in college?

You are invited to participate in a study investigating Mexican-origin students' experiences in college. For the purpose of this study, Mexican-origin is defined as any student born in the United States of Mexican ancestry (or of Mexican descent), meaning a parent, grandparent, great-grandparent, great-great-grandparent, etc. from Mexico.

Mexican-origin students may identify in a number of ways including Mexican American, Chicano/a, Latino/a, or Hispanic. The rationale for focusing on students of Mexican-origin in this
particular study is to respect the differences between Latino subgroups.

Participating in the study will involve completing an online survey that is not expected to exceed 45 minutes.

If you are interested, you may click on the link provided below, copy and paste the link into your browser, or visit psychdata.com and type in survey # 9595 in the box on the right side of the page. The password is 9595
https://www.psychdata.com/surveys.asp?SID=9595

If you have any questions, please feel free to email me at dinak@mail.utexas.edu or call me at 762-3979.

Thank you for your time and I wish you a successful semester.

Dina

Appendix H

Informed Consent for Data Collection Participants

Informed Consent to Participate in Research
The University of Texas at Austin

You are being asked to participate in an online research study. This form provides you with information about the study. This project involves gathering data through an online survey that will inquire about your experiences at The University of Texas at Austin. This survey should take approximately 30 - 45 minutes to complete. The results of this data will be used in partial fulfillment of the primary investigator's doctoral dissertation research requirement, and may be published in scholarly journals or presented at professional conferences.

As a participant in this research, you should read and understand the following:
1. Your participation in this research is VOLUNTARY. You are not required to answer every question that might be asked. This means that you are free to stop participating at any point without penalty or loss of benefits to which you are otherwise entitled.
2. There is no more than minimal risk associated with participation in this survey. Possible
psychological risks are likely to be small and unlikely to occur. You may at any time discontinue
participation. Findings of this study will contribute to the literature by providing information that
may be helpful for Mexican-origin college students in the future.

Title of Research Study:
College Adjustment in Students of Mexican-origin.

Principal Investigator(s) (include faculty sponsor), UT affiliation, and Telephone Number(s):
Dina Kopperman, M.A., Doctoral Student, Counseling Psychology, 762-3979
Marie-Anne Suizzo, Ed.D., Educational Psychology, 471-0379
Michele Guzman, Ph.D., Counseling Psychology, 471-0374

What is the purpose of this study?
The purpose of this study is to examine college adjustment in students of Mexican-origin.

What will be done if you take part in this research study?
If you decide to participate in this study, you will complete several questionnaires that ask you about various types of academic and social experiences and feelings that you may have experienced at The University of Texas at Austin.

What are the possible discomforts and risks?
The risks associated with this study are very minimal as the questionnaires do not ask for extremely personal or detailed information. The questionnaires are not intended to trigger any discomfort or anxiety; however, if you do feel that you have been adversely affected you may contact a mental health counselor at The University of Texas at Austin Counseling and Mental Center (512-471-3515).

What are the possible benefits to you or to others?
By being involved, you will be providing information that may be helpful for Mexican-origin college students. In addition, the information you provide may help to foster a greater multicultural awareness in institutional settings and reduce the attrition rates of Mexican-origin students attending college.

If you choose to take part in this study, will it cost you anything?
If you choose to take part in this study, it will cost you approximately 30 - 45 minutes of your time.

What if you are injured because of the study?
If injuries occur as a result of study activity, eligible university students may be treated at the usual level of care with the usual cost for services at the Student Health Center, but no payment can be provided in the event of a medical problem. It is safe to say; however, no injuries are anticipated.

How can you withdraw from this research study and who should I call if I have questions? If you wish to stop your participation in this research study for any reason, you should contact: Dina Kopperman at (512) 762-3979 or dinak@mail.utexas.edu . You are free to withdraw your consent and stop participation in this research study at any time without penalty. Throughout the study, the principle investigator will notify you of new information that may become available and that might affect your decision to remain in the study.

In addition, if you have questions about your rights as a research participant, please contact Clarke A. Burnham, Ph.D., Chair, The University of Texas at Austin Institutional Review Board for the Protection of Human Subjects, 512/232-4383.

How will your privacy and the confidentiality of your research records be protected?
Authorized persons from The University of Texas at Austin and the Institutional Review Board have the legal right to review your research records and will protect the confidentiality of those records to the extent permitted by law. If the research project is sponsored then the sponsor also has the legal right to review your research records. Otherwise, your research records will not be released without your consent unless required by law or a court order. If the results of this research are published or presented at scientific meetings, your identity will not be disclosed.

Will the researchers benefit from your participation in this study? NO

You have been informed about this study's purpose, procedures, possible benefits and risks. Please print a copy of this page for your personal records. If you have any questions about the study at ANY time, please contact Dina Kopperman. You voluntarily agree to participate in this study.

PLEASE PRINT THIS FORM FOR YOUR RECORDS!!

YOU MUST PRINT THIS FORM IF YOU ARE RECEIVING RESEARCH CREDIT FOR A COURSE!!!
MAKE NOTE OF YOUR ID NUMBER AT THE BOTTOM OF THE PAGE. YOU WILL

NEED IT TO RECEIVE COURSE CREDIT OR TO ENTER THE DRAWING.

If you have read and understand the above statements, please click on the "Continue" button below to indicate your consent to participate in this study

Appendix I

Instructions for Data Collection Participants

Thank you very much for agreeing to participate in my dissertation study. I appreciate you taking the time to complete the survey especially during a VERY BUSY time in your college career. Your participation will contribute to the field of research by providing information on enhancing the college experience for students of Mexican-Origin.

A web based study is an innovative way of conducting research and to ensure the study is carried out effectively certain testing conditions must be followed. It is important that you select a non-distracting place to complete the study. For example, a quiet location with few people is an ideal setting to complete the study. In order to protect your confidentiality, it is also important to log off the computer when you are finished especially if you are using a public computer on the UT campus. It is also important to know that once you have selected an answer, you can't go back to change it. So make sure to choose your answers carefully!

For a list of public computer labs on campus, please refer to the following website: http://www.utexas.edu/computer/labs.html

Are you required to complete this survey to receive 1 research credit for an EDP course you are
enrolled in this semester?
Yes No

If you are interested in entering your name in the drawing to win one of six 50 dollar cash prizes, I need you to be prepared to provide your NAME, EMAIL ADDRESS, AND RESPONDENT ID NUMBER (can be found on next page) on the LAST page of this study. Your personal information will NOT be connected to your responses!!!

All students participating in this study to receive 1 research credit for an EDP course they are currently enrolled in MUST provide their NAME, EMAIL ADDRESS, COURSE TITLE, PROFESSOR, & RESPONDENT IDENTIFICATION NUMBER (see bottom of the page) in the designated spaces on the LAST PAGE of the survey.
I will email you a certified receipt for your completion of the study that you may print out for your own records and for your professor.

If you have any questions while you are completing the surveys, please do not hesitate to call me at 762-3979 or email me dinak@mail.utexas.edu

Thanks Again, Dina

Appendix J

Demographic Information

What is your age?

What is your sex?
☐ Male
☐ Female

What year are you in college?
☐ Freshman
☐ Sophomore
☐ Junior
☐ Senior

How do you identify ethnically?
☐ Chicano/a
☐ Hispanic
☐ Latino/a
☐ Mexican
☐ Mexican American
☐ Other:_____

Mark the generation that best applies to you:

☐ First Generation: You were born in Mexico

☐ Second generation: You were born in USA; either parent born in Mexico

☐ Third Generation: You were born in USA, both parents were born in USA and all grandparents born in Mexico

☐ Fourth Generation: You and your parents born in USA and at least one grandparent born in Mexico with remainder born in Mexico

☐ Fifth Generation: You and your parents born in the USA and all grandparents born in USA

(Question adapted from ARSMA-II)

What is the highest level of education your MOTHER has completed?

- ☐ None
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11
- ☐ High School Graduate or GED
- ☐ Partial College (at least one year completed) or has completed specialized training
- ☐ Standard College or University Graduate
- ☐ Master's Degree
- ☐ Doctorate Degree
- ☐ Other (Please Specify)

What is the highest level of education your FATHER has completed?

- ☐ None
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7
- ☐ 8
- ☐ 9
- ☐ 10
- ☐ 11
- ☐ High School Graduate or GED
- ☐ Partial College (at least one year completed) or has completed specialized training
- ☐ Standard College or University Graduate
- ☐ Master's Degree
- ☐ Doctorate Degree
- ☐ Other (Please Specify)

Appendix K

College Stress Scale

Please indicate how much you agree with the following statements on a scale of 1-5, with 1 being "Not At All Stressful", 2 being "A Little Stressful," 3 being "Somewhat Stressful," 4 being "Very Stressful," and 5 being "Extremely Stressful." There are no right or wrong answers to these questions. I am simply interested in your opinions and how you view things

	1 Not at All Stressful	**2 A Little Stressful**	**3 Somewhat stressful**	**4 Very Stressful**	**5 Extremely Stressful**
1. Writing course papers	□	□	□	□	□
2. Family not understanding your current life style	□	□	□	□	□
3. Paying for bills and living expenses	□	□	□	□	□
4. Knowing how to prepare for exams	□	□	□	□	□
5. Having personal problems	□	□	□	□	□
6. Paying for food	□	□	□	□	□
7. Understanding your textbooks	□	□	□	□	□
8. Taking Exams	□	□	□	□	□
9. Paying for recreation and entertainment	□	□	□	□	□
10. Balancing your social and academic commitments	□	□	□	□	□
11. Meeting deadlines for course requirements	□	□	□	□	□
12. Handling personal relationships	□	□	□	□	□
13. Making your own decisions	□	□	□	□	□

independent of your family's wishes					
14. Paying tuition and student fees	□	□	□	□	□
15. Handling academic workload	□	□	□	□	□
16. Asking for help with your personal problems	□	□	□	□	□
17. Family experiencing money problems	□	□	□	□	□
18. Meeting personal expectations for academic achievement	□	□	□	□	□

Appendix L

Minority Status Stress Scale

For the following questions, I am interested in your personal experiences at a Predominantly White University.

Please indicate how much you agree with the following statements on a scale of 1-5, with 1 being "Not At All Stressful", 2 being "A Little Stressful", 3 being "Somewhat Stressful", 4 being "Very Stressful", and 5 being "Extremely Stressful." **When the term "Mexican American" is used in the survey below, it refers to anyone of Mexican Ancestry. Please respond accordingly, even if you identify yourself in some other way, such as Mexican, Chicano/a, Latino/a, etc...** There are no right or wrong answers to these questions. I am simply interested in your opinions and how you view things.

	1 Not at all Stressful	**2 Mildly Stressful**	**3 Moderately Stressful**	**4 Very stressful**	**5 Extremely Stressful**
1.The university does not have enough professors of my race	□	□	□	□	□
2. Few students of my race are in my classes	□	□	□	□	□
3. Racist policies and practices of the university	□	□	□	□	□
4. The university lacks concern and support for the needs of students of my race	□	□	□	□	□
5. Seeing members of my race doing low status jobs and Whites in high status jobs on campus	□	□	□	□	□
6. Few courses involve issues relevant to my ethnic group	□	□	□	□	□
7. Negative attitudes/treatment of students of my race by faculty	□	□	□	□	□
8. White students and faculty expect poor academic performance	□	□	□	□	□

from students of my race					
9. Pressure that what "I" do is representative of my ethnic group's abilities, behavior, and so on.	□	□	□	□	□
10. Tense relationships between Whites and minorities at the university	□	□	□	□	□
11. The university is an unfriendly place	□	□	□	□	□
12. Difficulties with having White friends	□	□	□	□	□
13. Negative relationships between different ethnic groups at the university	□	□	□	□	□
14. The White-oriented campus culture of the university	□	□	□	□	□
15. Having to live around mostly White people	□	□	□	□	□
16. The lack of unity/supportiveness among members of my race at the university	□	□	□	□	□
17. Trying to maintain my ethnic identity while attending the university	□	□	□	□	□
18.Having to always be aware of what White people might do	□	□	□	□	□
19.Being treated rudely or unfairly because of my race	□	□	□	□	□
20.Being discriminated against	□	□	□	□	□
21.White people expecting me to be a certain way because of my race (e.g. stereotyping)	□	□	□	□	□
22.Others lacking respect for people of my race	□	□	□	□	□
23.Having to "prove" my abilities to others (i.e.,	□	□	□	□	□

work twice as hard)					
24.People close to me thinking I'm acting "White"	□	□	□	□	□
25.Pressures to show loyalty to my race (e.g. giving back to my ethnic group community)	□	□	□	□	□
26.Pressures from people of my same race (e.g. how to act, what to believe)	□	□	□	□	□
27.Relationships between males and females of my race (e.g. lack of available dating partners)	□	□	□	□	□
28.Doubts about my ability to succeed in college	□	□	□	□	□
29.Feeling less intelligent or less capable than others	□	□	□	□	□
30.My family has very high expectations for my college success	□	□	□	□	□
31.My academic background for college being inadequate	□	□	□	□	□
32. My family does not understand the pressures of college (e.g. amount of time or quiet needed to study)	□	□	□	□	□
33. Being the first in my family to attend a major university	□	□	□	□	□

Appendix M

Acculturation Rating Scale For Mexican Americans II (ARSMA-II)[4]

Please reflect on your ENTIRE LIFE as you answer the following questions.

Please indicate how much you agree with the following statements on a scale of 1-5, with 1 being "Not At All", and 5 being "Extremely Often or Almost Always". **When the term "Mexican American" is used in the survey below, it refers to anyone of Mexican Ancestry. Please respond accordingly, even if you identify yourself in some other way, such as Mexican, Chicano/a, Latino/a, etc...** There are no right or wrong answers to these questions. I am simply interested in your opinions and how you view things.

	1 Not at all	**2 Very little or not very often**	**3 Moderately**	**4 Very Much or Very Often**	**5 Extremely Often or Almost Always**
1) I speak Spanish	☐	☐	☐	☐	☐
2) I speak English	☐	☐	☐	☐	☐
3) I enjoy speaking Spanish	☐	☐	☐	☐	☐
4) I associate with Anglos (White people)	☐	☐	☐	☐	☐
5) I associate with Mexicans and/or Mexican Americans	☐	☐	☐	☐	☐
6) I enjoy listening to Spanish language Music	☐	☐	☐	☐	☐
7) I enjoy listening to English language music	☐	☐	☐	☐	☐
8) I enjoy Spanish language TV	☐	☐	☐	☐	☐
9) I enjoy English language TV	☐	☐	☐	☐	☐
10) I enjoy English language movies	☐	☐	☐	☐	☐
11) I enjoy Spanish language movies	☐	☐	☐	☐	☐
12) I enjoy reading (e.g. books in Spanish)	☐	☐	☐	☐	☐

[4] Note. From "Acculturation rating scale for Mexican Americans-II: A revision of the original ARSMA scale" by I. Cuellar, B. Arnold, and R. Maldonado, R., 1995, *Hispanic Journal of Behavioral Sciences, 17*(3), 275-304.

13) I enjoy reading (e.g. books in English)	□	□	□	□	□
14) I write (e.g. letters in Spanish)	□	□	□	□	□
15) I write (e.g. letters in English)	□	□	□	□	□
16) My thinking is done in the English language	□	□	□	□	□
17) My thinking is done in the Spanish Language	□	□	□	□	□
18) My contact with Mexico has been _____	□	□	□	□	□
19) My contact with the USA has been_____	□	□	□	□	□
20) My father identifies or identified himself as 'Mexicano'	□	□	□	□	□
21) My mother identifies or identified herself as 'Mexicana'	□	□	□	□	□
22) My friends, while I was growing up were of Mexican-origin	□	□	□	□	□
23) My friends, while I was growing up were of Anglo (White) origin	□	□	□	□	□
24) My family cooks Mexican foods	□	□	□	□	□
25) My friends are now of Anglo (White) origin	□	□	□	□	□
26) My friends now are of Mexican-origin	□	□	□	□	□
27) I like to identify myself as a Mexican American	□	□	□	□	□
28) I like to identify myself as Mexican	□	□	□	□	□
29) I like to identify myself as an American	□	□	□	□	□

Appendix N

Perceived Social Support From Friends at The University of Texas at Austin[5]

The statements which follow refer to feelings and experiences which occur to most people at one time or another in their relationships with FRIENDS. **Please ONLY think about your relationships with friends at THE UNIVERISTY OF TEXAS AT AUSTIN!** Please indicate how strongly you feel about the following statements on a scale of 1 to 5 with 1 being "Strongly Disagree" and 5 being "Strongly Agree". There are no right or wrong answers to these questions. I am simply interested in your opinions and how you view things.

	1 Strongly disagree	**2 Disagree**	**3 Neutral**	**4 Agree**	**5 Strongly agree**
1. My friends give me the moral support I need.	☐	☐	☐	☐	☐
2. Most other people are closer to their friends than I am.	☐	☐	☐	☐	☐
3. My friends enjoy hearing about what I think	☐	☐	☐	☐	☐
4. Certain friends come to me when they have problems or need advice	☐	☐	☐	☐	☐
5. I rely on my friends for emotional support.	☐	☐	☐	☐	☐
6. If I felt that one or more of my friends were upset with me, I'd just keep it to myself.	☐	☐	☐	☐	☐
7. I fell that I'm on the fringe in my circle of friends	☐	☐	☐	☐	☐
8. There is a friend I could go to if I were just feeling down, without feeling funny about it later.	☐	☐	☐	☐	☐
9. My friends and I are very open about what we thing about things.	☐	☐	☐	☐	☐
10. My friends are sensitive to my personal needs.	☐	☐	☐	☐	☐
11. My friends come to me for emotional	☐	☐	☐	☐	☐

[5] Note. Reprinted from "Measures of perceived social support from friends and from family: Three validational studies," by M. Procidano and K. Heller, K., 1983, *American Journal of Community Psychology, 11*, 1-24.

support.					
12. My friends are good at helping me solve problems.	□	□	□	□	□
13. I have a deep sharing relationship with a number of friends.	□	□	□	□	□
14. My friends get good ideas about how to do things or make things from me.	□	□	□	□	□
15. When I confide in friends, it makes me feel uncomfortable.	□	□	□	□	□
16. My friends seek me out for companionship.	□	□	□	□	□
17. I think that my friends feel that I'm good at helping them solve problems.	□	□	□	□	□
18. I don't have a relationship with a friend that is as intimate as other people's relationships with friends.	□	□	□	□	□
19. I've recently gotten a good idea about how to do something from a friend.	□	□	□	□	□
20. I wish my friends were much different.	□	□	□	□	□

APPENDIX O

Kopperman's Scale of Social Support

Most students experience some or all of the following feelings or situations during their college careers. Please indicate who you MOST PREFER to talk to in these situations. If you have not encountered a specific situation, please indicate who you would MOST PREFER to talk to if the situation did occur.

Money Difficulties □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Employment Difficulties** (i.e., trouble finding a job, getting fired from a job) □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Friendship Problems** □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody
Questions/Advice about Romantic Relationships (i.e., Love, Dating) □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Questions/Advice about Sex** (STD's, Birth Control, Pregnancy, Date Rape) □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Roommate Problems** □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody
Problems with a faculty or staff member □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Failing or Doing Poorly in a Class** □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Homesickness** □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody

Loneliness □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Feelings of Sadness Peers at College** □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Grades** (good grades or poor grades) □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody
Physical Illness □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Psychological Distress** (i.e., depression, anxiety) □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Difficulties Adjusting to College** □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody
When you have had a big accomplishment □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Discrimination on Campus** □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody	**Being a minority on a predominantly White campus** □ Peers at College □ Peers at Home □ Mom or Dad □ Siblings □ Extended Family □ Resident Advisor □ Professors □ Religious/Spiritual Advisor □ Academic Advisor □ Psychotherapist □ Nobody

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